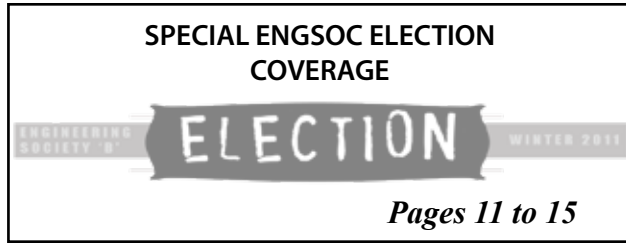


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Worms Controlled by Lasers?!

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SPECIAL ENGSOC ELECTION COVERAGE

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Where to get News

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twitter.com/theironwarrior

http://iwarrior.uwaterloo.ca

UW Wins at Queen's Entrepreneurship Competition

ADITYA BALI
4B MECHATRONICS

Last weekend, a group of unassuming Waterloo engineers travelled to Queen's University and took the Innovation award at the 23rd annual Queen's Entrepreneurship Competition – Canada's largest international undergraduate business plan competition. The team, consisting of Jay Shah, Mike McCauley, Vanessa Lee and myself are trying to solve the problem of missed parcel deliveries through our Fourth Year Design Project – BufferBox. We found a compelling business case for this product and submitted a business plan to the QEC.

The fifty page business plan competed against over seventy entries from countries as far as Australia, Hong Kong, Singapore and India. The team was excited to find out that our plan qualified us into the top 16 as well as the opportunity to pitch the idea for \$25000 in total cash prizes – Dragon's Den style.

The initial presentation was very well received and we progressed to the final round of 6 where we pitched to a distinguished panel of judges consisting of successful entrepreneurs, top executives and venture capitalists. After much deliberation, the BufferBox team was awarded the Innovation prize at the Final Gala. Thankfully there was an open bar at the Gala, leaving the entire amount of prize money



Vanessa Lee, Jay Shah, Mike McCauley and Aditya Bali were awarded for their innovation at QEC

Annie Wang

to go towards further development of our project.

We learned a tremendous amount preparing for this presentation and were blown away by the support offered by the

judges and other competitors. To keep the collaborative spirit of Waterloo alive, here are a few things we'd like to share about our experience:

- Don't be afraid to talk to strangers –

they are generally willing to help (unless of course they offer you candy and drive a van).

See QEC on Page 3

Colour Me Educated Campaign Starts Off Purple

ANGELA ROSSI
3A CHEMICAL

On Wednesday, January 26th the 2nd Annual Colour Me Educated Campaign was officially kicked off in the SLC. Our current Engineering Society President, Scott Rankin, sat in a dumpster for three hours with one representative from each society and the FedS current VP Education. Why would he do something so strange and unusual? The truth of the matter is that everyone in the dumpster that day was in there to raise money for a very deserving cause, Pathways to Education.

Pathways is a community based program that targets students grades 9-12 in economically disadvantaged communities ultimately to reduce poverty and its effects on the high school student dropout rate. The local Pathways branch, which was started in 2007, targets two communities within the Kitchener community. The Pathways program provides four different kinds of support to high school students: Academic Support (tutoring 4 nights a week), Financial Support (bus ticket distribution, food vouchers and scholarships), Social Support (mentoring program to help develop social skills) and Advocacy Support (Student Parent Support Workers). All the money raised during this year's

campaign will go towards the purchase of computers, workbooks and resources, and/or larger projects like specialty tutoring and mentoring opportunities.

So how do you raise money in a dumpster? Well let me give you the low down... each of the representatives set a goal for the minimum amount of money they wanted to raise before they could get out of the dumpster. Then they had the option to opt into the second portion of the fundraising. Once they had met their minimum goal, students could donate additional funds to keep the representative from their society in the bin, at a rate of \$2 per minute, for an extended period of time.

I am ecstatic to report that not only did the Engineering Society more than double their goal of \$100, but we blew our competition out of the water and raised \$316.01 in three hours. All the other societies did a fantastic job as well and we were able to collectively raise \$1223.75!!! But it doesn't stop here engineers! There is still a lot of time left to donate. The kick off of the event was on the 26th of January, but the Colour Me Educated Campaign is actually 9 WEEKS LONG, ending on March 30th with a paint drop.

See PURPLE on Page 4

How Egypt Shut Off Access to the Internet

MICHAEL SOARES
3B COMPUTER

If you aren't in the loop on what's going on in Egypt, let me give you a brief summary to give the rest of this article some context. On the 25th, people took to the streets to protest the growing rate of poverty and unemployment in the country, as well as the autocratic governance by President Hosni Mubarak for the last thirty years. These have been reported to be the largest protests that have been seen in Egypt since the 1970s.

These protests primarily started after those in Tunisia forced their government to be overthrown and the autocratic ruler there to flee to Saudi Arabia. Yemen has also followed suit in a series of similar but smaller protests following those in Egypt and Tunisia.

The Egyptian government first responded to these protests by having Internet service providers (ISPs) block people from accessing Twitter and Facebook, both of which have been used in past protests in other countries. Over the course of the next few days, things got a lot worse. Egypt completely shut off the Internet.

Shutting off the Internet for an entire country really isn't an easy task; there isn't a single giant red button housed inside a

Plexiglas case that someone can just press to block people from accessing the Internet. No, it's much more complicated than that.

The Internet is composed of many domain name system (DNS) servers placed around the world. Computers use these servers to convert domain names, like Google.com, into Internet Protocol (IP) addresses that all computers have, similar to the way your cellphone can call a number based on the name you choose to call in your contact list. ISPs in Egypt were initially ordered by the government to shut down their own DNS servers so none of these name-to-address conversions could occur. Fortunately, the Internet is composed of many DNS servers that are open to the public to use, so many journalists stationed in Egypt, as well as other tech-savvy users, configured their computers to use the servers instead of the ones in the country in order to communicate with the rest of the world.

This wasn't enough for the Egyptian government, so they took the final step and had ISPs in the country clear the routing tables on their externally facing routers. Think of a routing table as the address/postal code system in Canada.

See INTERNET on Page 3

Letter From the Editor

Elections, Voting and Being an Informed Citizen



CAILIN HILLIER
EDITOR-IN-CHIEF

Welcome to issue two of the Winter 2011 *Iron Warrior*. Again, we had an amazing production weekend and thank you to everyone who helped out. “Where is his face?!” And as always, caffeine, you have been a great help. I am very excited about the paper we have put together. This is most definitely an election issue of the paper, with profiles on EngSoc Executive candidates, WEEF Director candidate, FEDS Councillor candidates and Engineering Senator candidates. Please get informed and make an educated vote. Every vote matters.

This can be seen as a very overwhelming process. I mean, people are bombarded with information all of the time. I once heard a statistic stating that every day, we see roughly one thousand advertisements, whether online, as posters in the halls, or on giant billboard beside the highway. All this information can make it very easy to tune things out. But I think people are making it all too easy to tune things out these days. A perfect example is the current discussion regarding the use of the Engineering Society B mailing list. If you subscribe to this mailing list, at engsoc_b_general@googlegroups.com, which I believe everyone should do, you can expect roughly four e-mails each day. It is easy to simply archive them away in the deep recesses of your Gmail account, without as much as a glance at the content. Personally, at the very least, I read the subject heading of the e-mail before archiving it in order to get a rough idea of the event or service being explained and whether or not it is relevant to me. Often times, people are missing a great deal of information that would in fact interest them. Resume critiques, TalEng, and WEEF proposals – these are just some of the hot topics gracing our inboxes lately.

Information overload is a big concern to student societies as well as larger organizations and governments. How do we get information out there to people who may be interested, when the people out there have auto-filters simply to cope with the vast amount of information they are exposed to? For a long time, posters and e-mails have been the main method of getting information out to the student body about things like FEDS and

EngSoc. However, social networking through Facebook events and groups is an entirely new medium that works well for reaching the masses. The question now is, when will people start tuning out this form of information too? For some of my friends, that has already started, with many event invitations going completely unnoticed.

What concerns me is the amount of important information that is being overlooked. How do we get the information we need in order to be informed citizens if we are not responding to the information we are receiving? At times it seems as though we live on campus in little bubbles. But it is important to stay up-to-date on community, regional, provincial, national and international issues. Being informed is easier now than it was at any other time in history. I make it a part of my daily routine by visiting my favourite news websites each morning while I

How do we get information out there to people who may be interested, when the people out there have auto-filters simply to cope with the vast amount of information they are exposed to?

eat breakfast. For suggestions on several good new sources, please take a look at Alex Hogeveen Rutter’s article on page 17. Whether it is UW’s Daily Bulletin (<http://bulletin.uwaterloo.ca/>) or Reuters Canada (<http://ca.reuters.com/>), all levels of information are valid.

When looking at politics specifically, apathy is a big concern for all levels of government. In many cases, voter turnout is absolutely abysmal. There are countries all over the world seeking democracy, and here we are, with the option to vote, and yet many choose not to. In Australia, citizens are actually fined should they neglect their democratic duties. Overall, this seems like a good idea. It certainly brings out more people to the polling stations. However, the argument could be made that there are now just more people blindly casting ballots. I like to think that the majority of the time, Australians are educated voters, voting responsibly. For more on political apathy, please take a look at Spencer McEwan’s article on page 9.

Municipal politicians have increasingly been reaching out to students. Jeff Henry, a Waterloo Engineering Alum-

nus and Waterloo City Councillor, came to give a talk last week. He discussed how he got into politics, which all began when he was a student here. We were also able to discuss issues surrounding the proposed changes to rental housing in Waterloo, a hot topic among students. For more information on Jeff Henry and the rental housing changes, see pages 3 and 5, respectively.

Right now with all of the elections happening on campus, and while trying to stay up-to-date on the affairs of the world, it is crucial that you take the time to become informed. We are all busy; life is a constant juggling act between the things you have to do and trying to fit in fun wherever possible. But voting is a responsibility – a priority to be taken seriously. Right now, our campus has its very own Rhino Party – a party urging voters to toss away their vote in political protest against FedS, whose ultimate goal is to disband FedS altogether. This issue of *The Iron Warrior* discusses the UW Rhino Party pros and cons at length in the Point vs. Counterpoint on page 8.

From now on, I implore you to know what is going on around you. Simply saying that you don’t know what a group does for the student population at large is no excuse. Because they do a great deal! And just because you may be uninformed, it doesn’t discount their importance. Time and time again I have heard shocking untruths about WEEF or FedS or EngSoc from individuals who haven’t bothered to find the correct information. An informed opinion is an opinion worth listening to! The right information is out there; seek the good stuff and keep on tuning out the rest. Just getting that minimal understanding is a big step forward. There are people to talk to in person. Ask questions, from your classmates or from someone holding an elected position. They are here to inform you.

And just a quick comment to all of the candidates in the student society elections: thank you for putting yourselves out there to make these elections possible. It is because there are multiple candidates for positions like Engineering Society President that people will be able to get involved in the decision making process. It is through this process that issues can be debated and apathy can be edged away, bit by bit. Campaigning can be draining and I wish you all the best, looking forward to reading each of your platforms to see your ideas and where EngSoc is headed next. Good luck everyone.

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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The Iron Warrior is a forum for thought-provoking and informative articles published by the Engineering Society. Views expressed in The Iron Warrior are those of the authors and do not necessarily reflect the opinions of the Engineering Society.

The Iron Warrior encourages submissions from students, faculty and members of the university community. Submissions should reflect the concerns and intellectual standards of the university in general. The author’s name and phone number should be included.

All submissions, unless otherwise stated, become the property of The Iron Warrior, which reserves the right to refuse publication of material which it deems unsuitable. The Iron Warrior also reserves the right to edit grammar, spelling and text that do not meet university standards. Authors will be notified of any major changes that may be required.

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Fourth Year Design Project, BufferBox, is a Big Hit

QEC from Page 1

- Know what you don't know and find a way to make sure you know it.
- Listen to others and understand their perspectives. It's hard to beat free advice from smart people.
- When rehearsing for a big presentation, record yourself and learn from your mistakes. You may hate watching yourself, but the improvement is truly remarkable.
- Dress to impress—when you look good, you feel good. And when you feel good, you feel confident. Presenting with conviction goes a long way.
- Silverware is used from the outside in. Check yourself before you embarrass yourself.

So what exactly is BufferBox? The idea for this project came when one of our team members missed another delivery and had to go to the post office to pick it up. When he found the post office to be closed, he was infuriated and worse, was late for our

Skype brainstorming session. Luckily, that day's meeting was short and simple – we were going to solve the problem of missed deliveries by designing an internally reconfigurable, neighbourhood self-service kiosk.

The parcel delivery industry has not been able to keep up with the exponential growth in e-commerce and cater to a new demographic – one that likes to spend their hard earned money online and not wait at home to receive their package. Addressing this under served and growing market is what we founded our business model and fourth year design project around. We are poised to have a fully functional prototype for the Mechatronics Design Symposium on March 21 in the DC foyer. Come check it out alongside all the other cool projects!

If you have any questions, comments or suggestions, we'd love to hear from you at www.bufferbox.ca or on Twitter - @bufferbox.



Annie Wang

BufferBox Team Awarded \$1000 at QEC for the Innovation Award

Engineering Your Path

DOMINIC AQUILINA
2A COMPUTER

Some things just aren't clear cut. As much as we want all of the world's problems to solve themselves, an Engineer knows just how complicated even the simplest of things can become when you explore all of the possibilities. The thing is, this doesn't just apply to technical situations – this mindset applies to all of life's many interactions with the world at large. An onlooker may see you wearing a snazzy UW Engineering jacket and say, "So you want to be an Engineer, eh?" Well, no, not necessarily.

Some things just aren't clear cut.

On Tuesday, January 25th, Engineering students had the pleasure of attending a talk by Jeff Henry (credit goes to him for the title of this article). Councillor Henry is Waterloo's Councillor for Ward 6, as well as an active staff member here on campus and a 2004 Computer Engineering grad. His talk was about an intriguing and counter-intuitive topic – how an Engineering degree might not lead into an Engineering career. Obviously, Jeff is a politician, so how did a technical degree lead into such a social position? Interestingly enough, his job wasn't the focus of the talk – his focus was on a certain mindset. As Engineering students we are trained to seek out problems, and try to fix them, but our focus tends to be on the technical aspect of the problem. As a result, certain social implications tend to be overlooked.

Jeff cited the Clear Lake debacle as a

good example of this. This man-made lake was being filled with sediment as time wore on, causing the lake to become fetid. The residents around the lake were being driven away from their daily routines. The city stepped in, of course, and hired an Engineering firm to handle the issue. The firm analyzed the problem, and came up with a sound technical solution to the problem. What they failed to realize was that the lake was a focal point for the community. Their solution would have removed the lake entirely – nothing left for the residents to sit by and feed the ducks; nothing left for them to walk their dogs around (not to mention the fact that the houses of at least three people would have been replaced by a river). Essentially, they fixed the lake, but they destroyed a community.

Situations like these are why Jeff went into politics. He saw the big picture, the social aspect of life around him, and what he could do to help. He saw that student voices, making up a good third of Waterloo voters, was being drowned out in the face of non-representative census data, and wanted to find a solution. Not every problem requires a technical solution, but the Engineering mindset of finding due procedure and logical, practical application of theory to solve problems carries over into the rest of our lives as well. So what can we do? "There may not always be a clear-cut answer," mentioned Jeff, "but I know I'll feel better just knowing you're thinking about it."

Political Unrest in Egypt

INTERNET from Page 1

If Canada eliminated it, mail wouldn't be forwarded to the correct locations in the country, making mail "unroutable." The same thing happened with people trying to access websites based within Egypt, as well as those based outside for those trying to access the Internet from within the country; there was nowhere for Internet traffic to be routed.

For the time being, most people in the country cannot access the Internet. There

is still one alternative: using dial-up like back in the '90s. Some European-based ISPs have opened up free dial-up accounts for people in Egypt so that they can communicate with others (phone networks are still up). The most extreme step for the Egyptian government to take next would be to take down the phone networks, but then there would be absolutely no way for anyone, the government most likely being included as well, to communicate over long distances within the country.

Renovations to the SLC



ADRIANA CAMERON
3T MECHANICAL

In early 2008, Aussies convenience store, located in the lower level of the Student Life Centre (SLC) closed its doors to make way for the new, more conveniently located Feds Express convenience store located on the main floor of the SLC, near the Ring Road entrance.

Until recently when renovations began on the space, the Aussies space has remained vacant, serving as a storage facility for various FedS businesses including Curry Up! and Wasabi. The SLC management board along with the FedS Board of Directors has approved plans to allocate the space to student and club space.

"The space will include all the clubs and student space that is currently on the second floor clubs area" noted Sarah Cook, FedS VP Administration and Finance. Accordingly, the multi-faith prayer room, the clubs meeting area and the peer health education team will be moving to the lower level of the SLC. The vacated area on the second floor of the SLC will be used for FedS office space, after the amount of FedS office space was reduced following renovations to the FedS office in early 2008.

Students can also look forward to changes being made to the technology in the lower level of the SLC in order to improve internet accessibility. The wireless network will be upgraded, and there are plans to install computer terminals for student use.

Plant Ops have predicted that the renovations will be complete in late February.

Avenues for the Student Voice: A response from the Dean

ADEL SEDRA
DEAN OF ENGINEERING

Questions for the Dean: *How does the administration know what the students want? Where can the undergraduate student voice be heard? What committees can students sit on?* (Student questions submitted to Meg Bauman, SRO)

The Faculty of Engineering values our undergraduate students. The students are at the core of Waterloo's Engineering program and help us strive for excellence. The student "voice" can be heard in a variety of ways in Engineering.

Students have representatives on a variety of committees: Faculty Undergraduate Studies Council (FUGS), Engineering Faculty Council (EFC), Examination and Promotions (E&P), Senate Undergradu-

ate Council (SUC), WatPD-Engineering Curriculum Committee (CC), Cooperative Education Council (CEC), and Engineering Coop Working Group (CWG) – just to name a few. These student leaders are chosen by the student body to represent you.

Both Engineering Society presidents are ex-officio members of Engineering Faculty Council and ensure the undergraduates are represented. The administration has an interest in giving the students a vote on EFC agenda items. When the Council assembles this June it will address this issue. The department Chairs are a part of making many of the important decisions that directly affect the student body. The Chairs are entrusted to act in the best interest of the students and the program. Every Chair position is appointed by a committee which has a student representative.

The Student Relations Officer position (currently Meg Bauman) was created in 2008 in the interest of improving student relations with the administration, which was a direct result of the Vision 2010 plan.

Moving into the planning phase for Vision 2015 all Engineering departments and the Faculty are currently conducting self-study. The departments are soliciting undergraduate feedback through various methods, including student surveys – though it may not seem like an important activity to a busy student, the information received is vital to the program. Many departments have also selected student representatives to assist them with the self-study. During the development of their draft plans, department and faculty undergraduate committees will include student representation, with some

departments choosing multiple students. Full participation lists of these committees will be posted on the Planning web pages so you can share opinions with your representative.

Trust that you are being represented well. Student leaders in recent years have put forth excellent effort, and shown themselves to be informed and passionate about the Engineering student experience.

We would like to hear from you. Please attend the Town Hall meeting for Vision 2015 February 2, 2011 at 5:30 – 7:00pm in E5 3101&3102. This is your opportunity to have your voice be heard.

If you have a question you'd like Dean Sedra to answer please submit your questions to Meg Bauman, SRO mebauman@uwaterloo.ca.

Dumpster'ed for Charity

PURPLE from Page 1

The society that raises the most money during the 9 weeks of the fundraising campaign will get to dump their faculties colour on the School's President and the current FedS Executive.

Last year, Waterloo successfully raised \$6000 for Pathways Kitchener and so in an attempt to surpass our results from

2010, the Colour Me Educated Planning Committee has set a goal of \$7000 for this year's campaign. So it's time for everyone at Waterloo to dig into our pockets and show our love for our local community. It's time to give to those less fortunate than ourselves and support a cause that truly impacts the life of youth around us! Stay tuned for more details on Colour Me Educated events to come.



Angelo Alaimo

Left to Right: Brandon Wong, André Gomes Magalhães, Matt Heather, Rob Fry, Scott Rankin, Nick Soave, Dave Smith, at the beginning of their dumpster day for charity

Senate Elections Soon



JAY SHAH
SENATOR

The first Senate meeting of the year occurred on Jan 17th. There weren't too many decisions but there was lots of information, so I'm going to try and convey the most important points:

1) Senate elections are coming up! There are four candidates in the running: Trevor Jenkins, Jordan Lui, Ben Selby & Adhiran Thirmal, check out their profiles in The Iron Warrior or at vote.feds.ca! The election itself opens on February 8th, please please please vote! One of these fine gentlemen will be representing you at the highest academic policy body on campus for the next two years!

2) The Registrar's office is looking into a revamp of the UWaterloo Diploma. The last time it was changed was in the 80's, and there are many that feel it could use a spruce up. Taking learnings from the recent rebranding campaign, the admin is

very intent of garnering LOTS of student feedback and taking the entire process quite slowly. Roll out of the potentially new diploma will be for May 2012, there may be an option for recent grads to swap their diploma for a new one.

3) The Provincial government sets targets for how many undergrad and grad students it wants to see at each university. These targets are backed by financial incentives associated with the targets, this is a way to align government education policy with individual universities growth. UWaterloo is currently at risk of not getting all of the allocated financial support from the government if it does not boost the number of grad students in the coming year. As such, the Provost has kicked in another incentive for faculties, by pledging to provide each faculty \$5000 for every grad student above the base targets from previous years. To be clear, this \$5000 goes to the Dean, thereby encouraging faculty members to take on grad students; it does not go to the grad student.

Feel free to email me at senate@eng-mail. Good luck on midterms!

Meet Ron, My Iron Ring

A Letter from an Alumnus

ROSS RICUPERO
2009 CIVIL

Hi everyone! My name is Ron, and I'm an Iron Ring. I was born in a flash of molten steel and cut, rolled and pounded into shape on an assembly line. I can't remember exactly when or where I was born, but none of us do; the more important fact that we hold on to is the day we found our most recent home. For me that was March 28, 2009; it was the day I was given to Ross.

I'm sure the past year and 10 months have been a blur for him, just like it has been for me! He accidentally crushed me in a door, almost baked me into a casserole, drowned me in countless pints, pounded

me against tables and walls in anger and tapped me against everything else in joy. I was there when he broke down and cried. I was there when he landed his dream job. I am scratched, discoloured, dented and no longer round.

Together we've surfed on the Pacific and swam in the Atlantic, hiked up a mountain and stood at the edge of the desert. I've been with him as he started a career and laid roots in a new town, and I'll be with him as he changes careers again and enters what could be a terrifying and defining part of his life.

I'm there when he hugs his family and sees his friends.

Sometimes when he visits people I meet a fellow Iron Ring. We chat as they



JON MARTIN
3A CIVIL

Sony has entered a new phase in the lifespan of the PS3, but not by some new peripheral, reaching a sales goal or redefining their online market. This phase is not a good one for the company either: it is the age of the hackers.

The Sony PS3 uses a root code system for authenticating games, programs, and anything else that runs on the system. This root code governs the entire security of the system; at least it used to. Earlier this month George Hotz and his team successfully hacked the PS3 root code, opening the system to hackers around the world. Unlike previous hacks where they are based on a physical attachment to the system, which can usually be circumvented by a security patch, this hack is purely digital.

The magnitude of this hack becomes apparent when you look at how it will affect piracy on the system. Using this hack, any pirated game is playable, any trophy is immediately attainable, any operating system can be installed on the system. Hackers have already swarmed COD, leading to unplayable servers for honest gamers, some of who have now lost all of their stats and trophies.

Many gaming systems utilize a hardwired identification number, as well as a randomly generated root code for every individual console. This method increases security immensely because even if someone successfully breaks the root code, it will only work on that specific console. In addition, if that hack is detected by the console manufacturer they can ban that specific system from connecting to Playstation Network. This model is how Microsoft operates the Xbox 360 network, using a hardwired identification built into each component. If any components don't match, then the system will break and become a paperweight.

Sony made the mistake of using the same root code on every single system they manufactured, severely reducing the security. Once one system is hacked, then they are all hacked as the same process will unlock every system in the entire world. Also, the identification code for each system is stored digitally and secured by the root code.

Sony has the ability to detect people who are hacking games and the normal solution would be to ban them from the Playstation Network. Unfortunately, they can only ban a system based on the identification code, which can now be changed

using the root code hack. Sony can release all the security patches they want, but they won't last for long now that the root code is hacked.

The only foolproof way for Sony to completely fix the problem is to offer a voluntary recall of every PS3 they have ever sold, as well as retracting every console from retailers around the world. Each console would need to be opened up and have the CPU replaced. Of course the cost of shipping all of those consoles would be substantial—just ask Microsoft. During the Red Ring of Death fiasco, Microsoft extended their warranty to cover all RROD errors and also paid for shipping in some cases. However, that was just for a percentage of all consoles and the fix was easy – just swap out the heatsink. Sony has a much bigger challenge, considering that they need to change the way the entire CPU works to remove the hacking threat.

Of course, the obvious problem with a voluntary recall is that it is voluntary. Anyone who actually hacks their system does so for the sole purpose of defeating the built-in security, so they are not going to actually send their systems in – which trivializes any campaign to fix the problem.

How much money can Sony afford to dump into fixing this issue, and how much will it take to completely bankrupt their gaming division? This development will haunt Sony for many years, and cause headaches for all the PS3 gamers. There have been rumours for a while about a new tiered pay structure for PSN, but how can they ensure the quality when the hack is so easy and destructive? Developers of multiplayer games will now need to implement their own security systems in an attempt to ensure a fair competition for all gamers.

It is impossible to predict what will happen in the next few months, how Sony will respond, and how the law suit against Hotz will pan out. One thing is certain: this will profoundly change Sony's pricing scheme, their plans for the future and their planned lifetime for the PS3. Of course, Sony has been considering different options for the future of the Playstation brand; it's safe to say they are going to be profoundly changing their security system. Now Playstation is in a position where they need to release the successor to the PS3 as soon as possible, in an economic period where their competitors are trying to extend the current generation as much as possible. Sony has some very difficult decisions to make about the future of their console and it will be interesting to see the outcome of this unique situation, so stay tuned.

We don't imbue them with talent, charisma or intelligence. We don't see the future. We only remember a very specific past, and because of that we are like a picture. We are worth a thousand words, but to most people those words are jibberish.

We Iron Rings are not magic. We don't protect you from pain and hardship, and don't grant you happiness and success. Always remember that we are only there to remind you of an obligation, not help you fulfill it, and when an Iron Ring finds a home on your finger know that we will only mean something more if you want us to. But do not make us your life because life is hard and we are very, very small shields. We're just along for the ride.

City Discusses Rental Housing Bill at Open House



ERIN MATHESON
3A CHEMICAL

To follow up the release of the tentative new rental-housing bill, the city of Waterloo held a series of open houses for the public to ask questions and provide feedback regarding the tentative bill. On January 20th I had the opportunity to attend the last of the four open houses. The first thing that I noticed was how out of place I was – with a town hall meeting regarding a bill that would affect the students living in Waterloo the most, I was clearly the youngest attendee by at least 20 years. The second thing I noticed – no one at this meeting was happy about the new housing bill.

The underlying purpose of this bill is relatively clear – although the target of the bill is to limit renters licenses to competent and deserving individuals it will also push students into high density housing within the Northdale area while city council and the apartment management companies enjoy an afterwards smoke in bed amongst their wheelbarrows of money. What hasn't gotten a lot of attention lately is how many other people are getting a swift kick in the pants in the process, so they showed up to these town hall meetings to have their voices heard.

One group drastically affected by recent changes in municipal law are the independent landlords themselves – the maximum room allowance for a rental house will be reduced from five to three, and they will

be charged thousands of dollars for new licenses that were not previously required for their rental properties. Add this to the thousands of dollars already invested in their properties and these hardworking individuals are slowly being pushed out of business. One landlord explained at the meeting that he, “cannot compete with the slumlords” that control the high-density apartment units. Many landlords are reaching a point where they are simply refusing to jump through the hoops that city hall keeps putting up and are moving on to a different means of work.

This shockwave is felt elsewhere within the Waterloo community as well – an independent tradesman spoke at the meet-

ing and explained how this bill would put him out of business as the majority of his work is tending to repairs needed by rental properties and that this type of work within the high density apartment units is typically managed by the owner companies. A realtor also described how families who cannot afford to buy a house will not be able to find a place to rent within Waterloo due to the three bedroom restriction and be forced to leave the city. She described a scenario of RIM or Google's executives coming to live in Waterloo and searching for a rental unit, only to find the medium-sized three bedroom units that are permitted and being forced to live elsewhere. Although I struggle to see Mike Lazaridis or

Eric Schmidt calling a typical rental unit home, she makes a valid point.

What still remains the most important point from all of this is that the students are still being ignored. One student was able to speak at the meeting in defense of the student tenants but the glassy-eyed look of the councilors present drove home the fact that ‘student’ has become the latest four-letter word. Even some of the landlords present at the meeting failed to vouch for their student tenants, saying that students “have no idea what's going on with the housing bill.” One of the council members even added the apparent fact that “students like living in apartment buildings.” Needless to say there were times during this meeting where I struggled to not throw a temper tantrum.

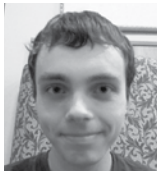
If there is anything to take away from the bill and the meeting it's this – rental houses will become a thing of the past, students will be forced to live in high density apartments that are less safe but twice as expensive, and several thousand students may be left without a place to live. If you are to participate in any campus initiative during your undergrad career, it's this one for sure. There is currently a Waterloo Students Against Rent Increase Facebook group that I highly encourage you to join, and there will be more town hall meetings when the revised bill is released in April. If there's ever been a time for the students of Waterloo to work together against something, it's preventing this bill from passing, because quite frankly, I hate apartment buildings.



Erin Matheson

Student faces Town Hall to raise issues about proposed rental changes

Nematode Worms, First to Fall Under Laser Mind Control



JACOB TERRY
1B NANOTECHNOLOGY

Researchers at Harvard University have discovered a way to control tiny worms with laser light. The system named CoLBeRT for “Controlling Locomotion and Behavior in Real Time”, named after the comedian Stephen Colbert, can make worms turn, freeze and lay eggs. The system allows scientists to work on a cell-by-cell basis to

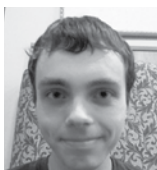
modify behaviour. One of the reasons this is so easy is because nematodes are easily controlled by light. Researchers also know the location of all 302 nerve cells on the worms. CoLBeRT allows them to control each nerve cell and see how the neurons affect the worm.

CoLBeRT works through optogenetics, where light can be pinpointed to switch cells on and off. The researchers engineered molecules into the worm's cells that respond to light. A computer program determines where the cell is, and when it is located, the program arranges the lasers so a thin light beam

hits the cell. This process takes 20 milliseconds. As the worm moves, the computer program analyzes this and the laser is adjusted. A motorized microscope stage brings the worm back should it move too far. This allows the organism to move around freely, which is more challenging in microscopic tests. The researchers also tested the durability of cells. By stimulating head nerve cells, the worms would move backward. Too much stimulation caused the cells to desensitize, and untouched partner cells would also not respond.

A group of scientists at Georgia Tech has a similar technique for controlling the nerves of worms, which is more effective if the worm is crawling slowly. Both projects could lead to breakthroughs in nerve control and understanding each cell's role in the behaviour of animals. This research could be useful not only in controlling organisms but in studying the nervous system of animals and humans. Imagine how much could be learned about the movements and operations of organisms if we could understand how every cell contributes to the whole.

Short, Tall, Grande, Venti, Trenta Starbucks Unveils Huge 31oz Drink Size



JACOB TERRY
1B NANOTECHNOLOGY

I'm not sure how other people settle on their drink sizes, but I have discovered that my tastes are a blend of time and density. Somewhere where the two converge, where I can take a few minutes to finish my drink and be content with my thirst, is my sweet spot. For me, the hot drinks usually fall into the Tall-Grande range and the Frappuccinos are almost always Tall. Iced tea is a Venti on most days but on the rare occasions I'm feeling really lazy, thirsty and warm, I'll admit I want something even larger.

It seems many other thirsty Starbucks customers agree, as Starbucks is introducing it's massive 917 mL (31 ounce) cup size, the Trenta, for

its iced coffees, iced tea and iced tea lemonade drinks. So far, this is only being launched in the United States but it's only a matter of time before it gets released in Canada. If it gets released here, be sure to go in on an empty stomach before trying one, as the average adult human stomach can hold about a litre before feeling uncomfortable.

The Trenta measures about five standard coffee cups. Although it could be viewed as merely offering a larger size, it could also serve as competition for the massive drinks offered at other mass consumption food locations. At Tim Hortons, the largest hot or cold drink size is the extra large at 590 mL. In the United States, Tim Hortons has a 709 mL extra large. Both these sizes are more comparable to the Venti cups than the Trenta cups. The huge sizes at a Cineplex or in the United States, a

7-Eleven, are more in line with the Trenta sized drinks Starbucks is now offering.

With more people demanding larger and larger food quantities, especially in the United States, it seems appropriate that Starbucks is offering this larger size, and it could be in Canada at some point soon. Even if you don't drink that much in one sitting, buying a Trenta and splitting it between a friend or two could be a cheaper way to get your thirst fix.

Where are you going to live next term?

Waterloo Residences is your right FIT!
Whether you'll be on co-op or in school, we have rooms available in both our traditional-style and suite-style residences to fit your needs.

Think on-campus living is too expensive? Think again.
Residence = \$689 per month (all fees included)
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Although the initial cost may seem high, living in residence really won't cost you much more than living off campus. Plus, since the University is your landlord you can look forward to a worry-free term with the cost of utilities included, and rent paid right from your Quest account!

Visit www.housing.uwaterloo.ca to apply now for the spring term!

Kumvana 2011 and How to Learn by Doing (Poorly)

Engineers Without Borders National Conference Hits Toronto

ROB REID
EWB CORRESPONDENT

Two weeks ago, I was fortunate enough to attend the Engineers Without Borders (EWB) National Conference in Toronto. Throughout the three days which contained information to sleep in a potent 10:1 mix, I found my self in an internal battle. On one side was compassion and good intent, urging me to do all I could to help others who were not born with the same opportunities and rights as I was. On the other side was history – what right did us Canadians have trying to show other people how to develop after decades of failed aid and when we certainly are nowhere near sustainable and equitable development ourselves.

Engineers Without Borders had been founded with the attitude of approaching poverty as a technical problem with an engineering solution. They quickly realized that development is much more than just technology, and have since matured into an organization that seeks to build capacity of the undertrained and underfunded government departments already set up to address issues such as water, sanitation, and agriculture. With “It’s not sexy, it works” as a slogan, EWB has stepped back from the clearly-defined parameters of a technical problem and reassessed the complex realities of poverty and development. And I think this stepping back is something we all need to do.

This thought was crystallized as I was watching a PBS documentary on British Petroleum

for one of my classes. As a helicopter mounted camera panned over an offshore drilling platform, I was awed by the hundreds of millions of dollars of amazing engineering, fabrication, and construction that went into it. I was also awed by how ridiculous it seemed. Why are our industries spending so much and depending on an industry we know is ecologically damaging from extraction to consumption and will certainly run out? A rethinking seems to be in order, and I don’t know how changing the way we look at things seems less feasible than continuing in a direction we know isn’t optimized for human welfare.

I myself was doing a lot of rethinking at National Conference. For the first time, I recognized EWB as foreign development NGO, and realized it’s implications beyond what I had come familiar with in the UW chapter. Being able to hear first-hand about the problems agricultural extension agents face in Ghana, what it’s

like to take on government corruption in Kenya, or how things have changed in the world of development over the last 30 years from people who have spent their lives working with these issues was incredible. I learned that it’s not enough to hold a debate between halves of your brain, you must invite the thoughts and feelings of people that also care and think about these same issues.

The name of this year’s conference was Kumvana; which means “unite, so we may discuss and understand,” in Chichewa, a Malawian language. Open discussion is key, whether over a personal struggle, an engineering problem, and especially with issues of such complexity as poverty. Speaking with very friendly people with passions and problems similar to myself was great, and speaking with a few people in particular helped me resolve my personal issues with aid projects. In the spirit of frank and open discussion, this past National Conference marked the re-

lease of the third annual Failure Report, which has been attracting a fair amount of attention lately. It is a chronicle of worst practices, resources misallocations, and unwise assumptions meant to help us learn what hasn’t worked and why so that we may progress, and not just continue. In the traditional “holier than thou” mindset of aid organizations, publishing failure reports is a big deal. Engineers know that technical mistakes must be learned from to protect public safety, and carry a symbol of historic failure to remind them of this duty. This sense of humility has not yet pervaded the aid industry. Whether it’s because the mistakes have less clear causes, because there is no tradition of critical analysis, or due to a limited perspective, aid NGOs consistently fail, but get back up and keep on trying. What makes EWB special is their stated focus on being critical and learning from past experience to optimize aid effectiveness. Although the failure report has a

long way to come, it has a lot of potential for promoting learning and discussion. Just imagine if the federal government published one.

I would encourage present chapter members, people on the mailing list who don’t quite make it out, and even people annoyed or confused by EWB to attend a National Conference, and I challenge you to say your way of thinking and the lenses you perceive the world through hasn’t changed. I also challenge everyone to find George Roter and Parker Mitchell’s class picture in E3.

More articles on our blog <http://uwaterloo.ewb.ca/>

Follow us on Twitter @ewb_uw



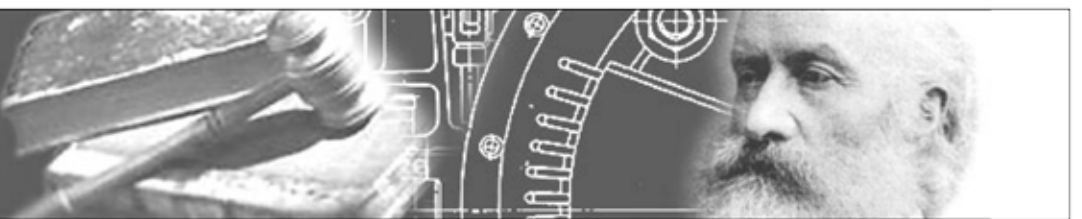
Past and Present UW Students at the EWB Conference Gala 2011, including EWB CEO George Roter



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Available Awards, Grants, and Scholarships

The Sandford Fleming Foundation is a not-for-profit organization associated with the Faculty of Engineering at Waterloo.

Its primary objective is to foster and create an enriched academic environment for co-operative engineering students.

Karen Mark Scholarship - \$1000

The Scholarship is awarded annually to a female third-year undergraduate Engineering student based on excellent academic achievement and demonstrated involvement in and contribution to student life at the University of Waterloo. The award is funded from a special endowment and the winner is selected from recommendations submitted by the departments.

SFF Memorial Leadership Award - \$1000

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

Undergraduate Research Assistant Award - \$300

This award supports undergraduate research assistantships (URAs) that are co-supervised by professors in the Faculty of Engineering and professors in other Faculties. This award is intended to enable URA opportunities in situations where financial support may otherwise not be available.

Undergraduate Co-Op Award - Up to \$1000

This award supports academic co-op placements that are co-supervised by professors in the Faculty of Engineering and professors in other Faculties. This award is intended to enable interdisciplinary co-operative education opportunities in situations where financial support may otherwise not be available.

Work-Term-Report Award for Environmental Design and Innovation- \$300

Each year an award of \$300 is given for an outstanding work report that best exemplifies environmental design and innovation. The award is available to Engineering students in all disciplines.

Dufault Awards for Work-Term Reports - \$300

Awards of \$300 each are given to undergraduate students in Electrical and/or Computer Engineering for the best work-term reports in their classes. Up to four Awards are given each year.

SFF Work-Term-Report Awards - \$300

A number of awards of \$300 each are made to second, third and fourth year students in those classes for which industrially sponsored Awards do not exist.

John and Duxbury Fisher Leadership Award - \$2000

The John Fisher Award for Leadership is made to students graduating from the undergraduate program who has shown outstanding leadership throughout their academic career in activities that relate to engineering education.

Undergraduate Travel Grants

Grants of up to \$1000 are available to engineering students to assist with travel and registration costs to conferences and competitions

SFF Student Exchange Scholarships - \$800

These scholarships are awarded each Fall to undergraduate engineering students who participate in one of the exchange programs between uWaterloo and overseas engineering schools.

Dr. F. Hecker Exchange Scholarships - \$1000

This award is given to an outstanding undergraduate Engineering student at the University of Waterloo who is participating in one of the Faculty’s student exchange programs in the European theatre.

For more awards, information, and how to apply for the above awards, grants, and scholarships, please visit the SFF website listed below.

E2-3336, Extension 84008, sff@engmail.uwaterloo.ca, www.eng.uwaterloo.ca/~sff

Great Northern Medieval Fayre Trebuchet Competition



JON MARTIN
3A CIVIL

May 26th to the 29th, 2011 will see a the Great Northern Medieval Fayre descend to fairgrounds between Stayner and Collingwood, Ontario. If you have never been to a medieval fayre, or festival, they are a great showcase of the fascinating history, art, sports and culture of this incredible time period.

The first big event is full-armor, full-contact, jousting. Jousting was a competition between knights, riding at full speed

on horses. Each knight carries a lance (a long wooden pole), and tries to knock their opponent off their horse. The sport was incredibly violent, sometimes resulting in serious injuries and death.

Other important events include archery, a falconry show, a magic show, music and dance. Of course, there are the standard assortment of merchants selling crafts including costumers, leather workshops, chain maille artists and many more. Check out the event website www.medievalfayre.com for more information.

The main event to be discussed here is the first annual trebuchet competition. This competition is open to students of all ages, kids, adults, individuals, groups,

and business. Prizes will be given away, and there will be trophies for the top three winners. The Trebuchet Competition will be taking place on Sunday, May 29th. Competition rules are posted on the main website, along with team registration.

Now a quick word on trebuchets, in case you don't know what they are or how they work. Trebuchets are part of the group of machines known as siege engines, which includes ballistae, catapults, and fortified wall scaling machines.

Catapults and trebuchets are often mistakenly grouped together, but they use very different systems to launch the projectile. Catapults use a very simple tension system to propel an arm upward and fling

the projectile. One end of the arm is fixed, while the other end is pulled downwards through human strength/simple pulleys and locked to hold the potential energy. Trebuchets on the other hand use a longer arm with a mounted counterweight. The counterweight is lifted using simple pulley systems, then locked in place to contain potential energy. Multiple designs for trebuchets exist, including a modern design known as a 'floating arm' trebuchet-just search online and you will find numerous designs.

Look up the fayre online, register a team, and make Waterloo Engineering proud!

Changes coming to Engineering Email at Waterloo

ERICK ENGELKE
DIRECTOR,
ENGINEERING COMPUTING

Engineering Computing is the group that manages many labs, printers, networking, the consulting office, engmail, Nexus, N: drives, and numerous other computing services within the faculty.

The Faculty of Engineering is getting out of the Email business. Student Email is moving to IST's Mailservices during reading week while faculty and staff are moving to IST's Connect over the coming months.

Students who use MyWaterloo.ca and let the system auto-select the Email server will be redirected when the accounts move to Mailservices. Your @engmail address will be valid for quite a long time, we will forward Email to the new addresses. Your preferred new Email address will be userid@uwaterloo.ca.

How things change. During the entire month of October 1988, Engineering Computing processed approximately 1,000 messages to our undergraduate network from the Internet. Within two years, we were processing 1,000 messages per day and deploying new systems to keep up. Metcalfe's law states that the value of a telecommunications network is proportional to the square of the number of connected users of the

system. Our Email growth reflected the rising connectedness of the world.

The first mass Internet spam was in 1994. Spam quickly became a parasite on servers, and attachments added load, forcing us to upgrade to ever more powerful servers every few years.

Now it is pretty common for 1,000 message to blast to our Email systems per minute (or more if they could), and the vast majority of it is spam, much of which is discarded before you see it. Not only are the spam rates climbing, the spammers are getting more sophisticated and harder to detect.

Today our Engineering users communicate with people worldwide and they themselves are offsite - 65% forward Email to Gmail alone. This makes sense; Gmail does a better job than we can ever do on campus. They offer more storage, a better user interface, better spam handling, Email for life, etc. The days when UW could compete on Email are long over.

For the last few years, Engmail used an open source package called SpamAssassin to try to classify spam using a variety of techniques. It does not catch all spam (I'm sure you noticed this), and it has false positives which may cause some valid Email to be treated as spam. IST also uses SpamAssassin for Mailservices and Connect.

For added measure, IST use gray list-

ing, which uses a system of delays to try to weed out spam. Under gray listing, a good percentage of off-campus-originated Email is delivered hours later than it was sent. Under testing Engineering Computing staff found these delays rendered Email effectively useless. Worse, several important Emails never made it through.

IST's gray listing is already turned on as part of the transition. You can turn off gray listing for your Email account at <http://mailservices.uwaterloo.ca/graylisting-toggle.php>

Many are questioning why UW is still offering Email locally. Google does a far better job, it's also a lot cheaper and the money saved would be better spent on other endeavors. IST's mail clusters consist of more than 20 server class computers; it's expensive and history suggests it will need constant staffing as well as frequent upgrades and overhauls.

Youth today are relatively unimpressed with Email; they favour other technologies for most of their communications. There are essentially two reasons why people feel students need UW-related accounts (though they could be hosted offsite). Students need a way to communicate with faculty that is secure and uniquely identifies them (UWuserid) - but Email is still an insecure protocol, anyone can impersonate any-

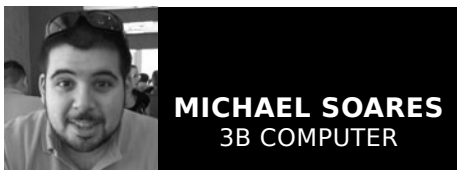
one else - a closed messaging system on Ace would be better. The other factor is that students prefer to correspond with employers and potential employers with a UW branded address.

Google Apps for Education would offer Email for life, calendaring, 7GB of storage, word processing, spreadsheets, sophisticated sharing, all with no ads and excellent privacy. It's already used by thousands of universities. Microsoft's Live@Edu competes with a similar array of features and followers. Opinions seem to flare when you ask someone which would be superior.

However, there is an impediment to transferring student (and faculty and staff) Email to Google or Microsoft - neither company will guarantee that the data will stay in Canada and be subject to Canada's and Ontario's privacy laws. Most likely it would be hosted in the United States and be accessible under the Patriot act. WLU got around this problem by suggesting Gmail accounts (with WLU branding), but offering optional WLU locally-hosted Email accounts for anyone who preferred the local account. 100% of the students took the Gmail option.

I've started a blog about computing related issues for the faculty at <http://engineeringcomputing.blogspot.com> There you can find graphs, data and commentary.

Ripped off by Texting? There's an App to Fix That



MICHAEL SOARES
3B COMPUTER

As more and more people start using mobile devices nowadays, it becomes easier to stay in touch. But sometimes, the actual cost of doing so can add up to a lot, dollar-wise, that is. Take text messaging as an example: Why would you want to pay 15¢ for every message you send when, in reality, it only costs wireless carriers a fraction of a cent to get a message from one phone to another? That's a huge markup! If only there were an app you could use to save that money for going out...

Enter PingChat!, a free text and multimedia messaging app used by over eight million users worldwide developed by Enflick, a small startup company located right here in Waterloo run by three former grads! PingChat! for the iPhone/iPod touch, BlackBerry, and Android phones allows you to chat with anyone that has the application on their device. It has the abil-

ity to share your photos, contacts and location with friends (only when you choose to do so, of course), and even lets you do group chats, which is especially handy when you're out and about and want to get in touch and collaborate with a group of friends all at once. This is something regular text messaging just can't do! Check it out if you don't believe me. And did I mention it's FREE?

If you're interested in developing apps like PingChat! or doing any kind of marketing, you should also know that Enflick is hiring! Instead of getting a RIM job or becoming a Googler, check out Enflick if you're looking for a fun and laid back working environment, where you can typically show up for work at 11 am without getting told off by someone. It's the complete opposite of your typical corporate working environment, with an open concept space and no cubicles, which is definitely a plus for collaborating with the team. Enflick is hiring students for all terms, so check them out while JobMining or on their website at www.enflick.com/careers.html.

So What Exactly is PEO SMP?



AMRITA YASIN
4B CHEMICAL

Last week I registered for the Student Membership Program (SMP) established by the Professional Engineers Ontario Association (PEO). According to the website, "the main goal of this site is to provide you, the student, with a fast and easy access point to information you need about the engineering profession and Professional Engineers Ontario." To my disappointment though there was nothing on the website to be explored, much less regarding it as useful or not. Information about obtaining the License to work as a Professional Engineer in Ontario, Pre-graduation experience guidelines and more are available publicly on the PEO website, and do not require an SMP membership.

A casual chat with some of my peers who have had a membership for a number of years revealed that they don't

know what the program offers and have never been contacted in any form whatsoever by SMP.

A survey conducted by Engineering Student Societies' Council of Ontario (ESSCO) also revealed that students were unaware of the program's structure and function didn't deem this program as something beneficial. The most shocking part is that there is no communication from the SMP about anything. However, students are really interested in knowing how exactly SMP can benefit them, they want SMP to be more active in sending out emails and announcements regarding PEO newsletters and chapters, help with job searching/career fairs, accreditation requirements, upcoming exams, changes in licensing rules, spotlights on engineers who have recently won awards, and more importantly updating their website. One interesting comment read that ESSCO should take the initiative to inform PEO what they want to see coming out of this program as PEO cannot be expected to have this as their priority.

Point Vs. Counterpoint

POINT

COUNTERPOINT

Is the Rhino Party Good for the FedS Election?

ERIN MATHESON
3A CHEMICAL

Over the past few days the walls of almost every campus building have been plastered with some type of election related media. Having FedS council, FedS executive, and University Senator elections being run simultaneously this term, not to mention the current Engineering Society election, advertising wall space is becoming a rare and much sought after commodity. As has been somewhat of a tradition over the past few years, candidates for the FedS executive election typically form 'political parties' across the various positions during their campaigning. Some may remember the current FedS executive as 'Team Yellow' from last year's elections. This time around, one party in particular is getting a lot of attention across campus – "The Rhino Party". Formed along the lines of the infamous Rhinoceros Party of Canada, who from the 1960's to the 1990's would campaign in federal elections with a platform held up solely by satire and their one promise 'to keep none of their promises', the current UW Rhino party plans to do just the same. The irony behind their satirical ways, including a platform that will be '3 feet tall, and made of wood' is that they're actually helping FedS.

Student apathy is the biggest problem faced by all student organizations across campus, and FedS falls victim to it most frequently. Most students on campus either submerge themselves in their studies, have extra-curricular commitments elsewhere, wish to have nothing to do with student politics, or some combination of the three. With each faculty on campus also having their own specific student society, it's a struggle for most students to show active interest in both their faculty's society as well as FedS. Given the resources available to FedS this is both unfortunate and concerning – provided enough campus-wide student involvement, FedS would be a powerhouse. Sadly, over the years they've fallen into the category of the 'executive that doesn't do much' in the books of many

students. As a result, come election time their nominations open and close, campaign period goes by, and the voting polls close without many students so much as batting an eye. Once all the votes are tallied, the FedS election voter turnout would be lucky to gain more than 10% of eligible voters.

If the Rhino party has managed to accomplish anything through their campaign, it's getting students on campus talking about the FedS election – The Iron Warrior staff couldn't stop talking about it so we wrote a Point/ Counterpoint about it! It may not be the publicity FedS dreamed of, but I know I haven't heard FedS be mentioned within the walls of an engineering building this frequently since I started at UW. For the first time in what I can only assume is far too long, students are actually taking time to think about a discuss the FedS election and what FedS actually does, even if it's mainly about what would happen if the Rhino party got elected.

Let's be clear here, by no means am I endorsing the Rhino party or what they stand for, nor do I believe that a 3-foot tall wood platform is what is needed within the walls of FedS. What I am endorsing are the conversations regarding the FedS election that this party has sparked. I've discussed the potential repercussions a 'do nothing' executive could have on FedS and the student body as a whole with classmates and friends who would have previously labeled themselves as disinterested with FedS news. I can even admit a serious personal feeling of both concern and interest for the FedS election this term, whereas I have not been highly involved with FedS in the past.

Instead of criticizing their satirical ways, I propose that as a campus-wide student body, we seize this opportunity for conversation. After all, FedS is the only student-run association on campus that truly represents each and every Waterloo undergrad student. Get informed about all of the candidates, bring it up with your friends and have your say in what happens on our campus – even if in the end it was because of a Rhino.

ALESSIA DANOLON
3A MECHANICAL

Student politics have forever remained a controversial and quick paced environment of hot topic inside and outside of the student body. A topic of even more attention is the lack of tangible work, benefits and services for students as a result of student government. A statement towards FedS regarding their alleged apathetic attitudes, lack of transparency, and their willingness to yield to administration under any circumstance may be a valid cause to those running in the Rhino party. However, mocking the institution is by no means the way to influence betterment. It leaves the system running the same way it was before, consuming valuable resources for improvement, such as respect for the society, its members and its ability to provide for the students.

It is seriously discerning to think that this sort of thing is allowed, even in the realm of student politics. A completely satirical party, with no intention of performing any FedS duties, let alone some of them poorly, is in the running. The dream world of Heller's imagination literally existing within the realm of our student government. It's a completely frightening thought that something so destructive, a party representing the lack of action, could come so close to being taken as seriously as the other party in the running. What progress can we make if we allow stagnancy to be represented alongside progression?

The Rhino party is exemplifying the very type of student that they describe FedS as having bred; a self righteous student with no desire to improve the institution by means of their own effort or support of others' efforts. In addition to doing this, they also make a mockery of student politics. If their main issue with the university's student government is that it is "keeping the students apathetic and uninformed" then why not move for change? By running a joke campaign, they dissolve any faith the students of this institution had in the betterment of student government, and prevent movements for positive change in the process. Though this Rhino campaign may draw attention to certain flaws in the student association, so does

a legitimate campaign! A party that actually wants to work towards improving the services FedS offers will outline in their campaign the places where they feel FedS is lacking and, perhaps to the surprise of those running in the Rhino party, actually suggesting feasible solutions to those problems.

A severe issue with the way the Rhino party is currently going about making their statement towards FedS is the reflection of students on the whole. Students are already taken less seriously than most faculty and administration at the institution because of their supposed lack of experience and understanding. The way to ensure that the student opinion is heard by administration is not to make a mockery of the current student government. Faculty and administration are supposed to have faith in the students' ability to take matters seriously and act on important ones professionally. How can that happen if they very students who wish to represent those opinions don't take student government seriously?

If the Rhino party really did want FedS to stop breeding apathetic students, then it would not allow the students to pay even less attention to the election because they know a "joke" party is running. One may argue that it is the nature of a "joke" party that draws attention to the election, however, it is really a good campaign that draws attention to the party in question. The Rhino party has in fact done an excellent job with their campaign. Their posters are innovative, eye catching and overall graphically appealing. It's this aspect of them that draws students to their campaign, not the mockery aspect of their campaign.

Overall, the notion of a rhino party, or in this case, the Rhino Party, is detrimental to the progression of FedS into ever improving its services and governance. It demeans the ability of the students to perform on the society. Instead of exemplifying the flaws of FedS, it deters those with the ability to provide progress from participating in student government. The Rhino party has not brought forth issues, but rather offered a good laugh to students who remain ever as "apathetic" as when this election began.

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.



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Letter to My 1A Self



BOBBY LEUNG
4B MECHANICAL

Dear Bobby,

Today is truly your lucky day. I am you, four years older, maybe two years wiser. I am going to reveal your future so you can be in fourth year in 2015. We both know you have many things going for you. You're youthful, handsome, and have above-average height, but take to heart the lessons I learned and your five years at UW will be great.

First year can be tough, but you will get through it. Most importantly, don't feel terrible about the nasal infection you got during frosh week. You average one annoying illness each year, so you can check that off the list. In the classroom, the pace is unlike anything you have experienced in high school, but if you are diligent with your notes, the pace will become a non-issue. Just make sure you do the assignments. They are critical for your success, not only in your first year but for subsequent years also. You should probably separate yourself from residence when you get the chance. I was a couple of terms late. It saves you a few dollars and it is a positive step forward to adulthood. Unfortunately, you will immediately find job

hunting difficult. You will realize, with disappointment, that most of your high school extracurricular activities are secondary or even tertiary attributes on your resume. Employers look for proven skills and relevant job experience. Being the captain of the volleyball team or a member of student council is like the baked potato to a prime rib steak: it is nice to have there, but the substance is elsewhere. If you get a chance to write a letter to your high school self, make sure to encourage him to volunteer at legitimate organizations and get some value-added jobs. Your expectations of a job offer in the early cycles will not be met, but fear not, someone will give you a chance. In first year, you learn that the world is big, but you also learn about perseverance and develop inner strength.

Second year is when you experience academic puberty. You realize your experiences in high school have taken you as far as you can go. Suddenly, equations have more terms, terms have more coefficients, and coefficients become more Greek. Of your five years at UW, you struggle the most in 2A because of your transition from high school to higher schooling. Different people will say that different terms are the hardest for a mechanical engineering student, but for me, every term is harder than the last, but you develop as a student more quickly than the rising difficulty of the course content, so you will feel that

future terms are easier. You will also start to have more labs than you care to have. Second year, in fact, is the year you start working past 9PM. You will work past 9PM almost every night moving forward. Much like plastic deformation, you will never go back to your first year study habits. You will be glad that job hunting is significantly easier after you have some work terms under your belt. You will be annoyed that your interviews take up most of your lecture time, but this is a good problem to have. Second year is the year of transition.

During third year, your only concept of the sun will likely be just its spelling. You will be at school for early classes, and leave late after working on labs and projects. You will have multiple tasks worth 20% or more of your final grade thrown at you in such a way that you will have to stay late to work on something essentially every week. Hopefully you will have developed your organization skills and physical endurance so that you can handle the workload. I highly recommend you attempt to write your report, answer any questions, or create any additional deliverables on the same night that you start your lab or project. Having these tasks done before the next big job comes up makes your life much easier to manage, and the sense of accomplishment and comradery with your teammates feel great. The job hunting process provides a sense of satisfaction, because you and your

colleagues form the top of the prospective employee totem pole. You actually start not applying for certain jobs because you cannot afford to go to all the interviews. Third year is a lot of work, but you finally have a clear understanding of your expectations. By the end of third year, you will know what needs to be done and you will be capable of doing it.

Fourth year is the light at the end of the tunnel. You will have come a long way. Unbelievably, you will have more work to do. More surprisingly, however, is your acceptance and numbness towards the mountain of work. Secondary to your course work is your impending graduation. Recently, I was part of some iron ring ceremonies with my classmates and friends. I do not remember laughing that much since, well, my first days at university. In your next five years, you will experience many difficulties. Despite some moments where I may have used my outdoor voice in an indoor setting to exclaim my distaste for academia, I have learned that university is a gift. It grants you a rare opportunity to grow as a person by compelling you to use and hone key soft skills that will play such a major role in your professional career. The next five years will be unforgettable. You will make it to where I am today. Just be yourself.

With great appreciation,
Bobby.

Political Apathy is Not an Option



SPENCER MCEWAN
4B ELECTRICAL

This article is about politics. Personally, I have an interest in politics, but that is not the case for scores of my classmates and colleagues. There is a growing population of individuals who just don't give a damn about politics. I refer to all types of politics: municipal, provincial, federal, international, and even the politics that are present on our own campus. More and more, people have turned a blind eye to the issues that surround them and it is damaging the very fabric of our society and our practice of democracy.

Apathy is a dangerous reality. It can allow small groups to effectively control the agenda and actions of associations, governments, industry, and academia. Lobbyists at every level of government exist to persuade the individuals in power to take certain actions -- whether it be how to spend money, what stance to take on current issues, how to award government contracts, or where to conduct public works projects, to name a few. If the public takes a disinterest in these types of issues, it allows small minorities to speak on our behalf, sometimes with dire consequences.

Compounding this issue is that many members of the public have no knowledge of the very existence of these issues. I was shocked to hear that a great majority of my friends and colleagues were not aware of the controversy regarding the Canadian census changes that dominated the headlines in early August last year. Never mind not having an opinion, they hadn't even heard about it! Issues like the morality of Wikileaks releasing classified diplomatic cables, our country's commitment to the war in Afghanistan, and the town hall meetings regarding student housing in Waterloo are not on the forefront of our conversations and they should be. Our opinions and discussion greatly shape the actions that our elected representatives

eventually take, and this would be the case if everyone was actively engaged. This is why being informed is so important. It takes the power away from the lobbyists and the social elite and ensures that the public has more say.

There are many instances when citizens become outraged at actions that their representatives take. Many times, politicians and organizations are accused of pushing through proposals that cater to a small minority of the population, or that actions were taken without consultation of affected individuals. However, in many cases, this information was available long before the local media sensationalizes it with a front page story. Information is usually available; you just need to know where to look for it. Policy makers routinely hold town hall discussions and consultations before developing proposals. Unfortunately,

ly, turnout to many of these are low and the discussion is shaped by the few who actually attend. For a local example, the Federation of Students on campus routinely sends out surveys to all undergraduates regarding their services and events. Your decision not to participate in this discussion essentially limits the association's ability to cater to your opinions.

So where does one find information of interest? There are many different places you can read up on issues. You are not just bound to national or local newspapers. Magazines, blogs, and forum discussions are excellent places to find views on popular topics. The Internet is probably the biggest repository of information and discourse that we will ever know. You can find wide-ranging views on everything and anything-it just may take some time to sift through and find something of inter-

est. It's also useful to talk to other people about specific interests. There is no reason why you can't email your Engineering Society Executives to get more information about a specific event, or your local Member of Parliament to request clarification on a controversial bill. I have emailed my local MP two times in the past three years, and both times I received a very prompt response.

So, I implore you. Take some time and read up on current events. Read a newspaper every now and again. Find a source of information you enjoy reading from and check it regularly. Even more importantly, don't be afraid to engage others in discussion! Inform and interact with the people around you. You will help spread knowledge and awareness of current events and gain different perspectives on many issues. Remember, knowledge is power.

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January's Presidential Report



SCOTT RANKIN
PRESIDENT

Below is a list of the major Presidential things I accomplished this month.

1. I attended the Engineering Faculty Committee meeting on Jan 18th, and I would like to give everyone an update on what is going on in the engineering faculty from the faculty point of view.

Updates from the Vice President Academic Provost:

i. The University is opening a new office of Student Success. This office will offer:

- Extra English writing support personal, for those who need to improve their English writing skills

- More counseling services
- More support of International student welfare

Updates from the Dean of Engineering:

i. Vision 2015. BIG TOPIC! Details are: REMEMBER!!!!

If you would like to give your input on the Vision 2015 plan, please go to the town hall meeting:

Feb 2nd, E5 3101, 5:30-7:00

ii. UAE Campus updates:

- 95 applicants have applied for the 2011 year(much higher than previous years), projected 350 applicants by April

- Planning on enrolling 120 students in 2011

- Success rate is very high for students currently enrolled (90%)

- The current Civils/Chems in 2B will do an 8-month co-op May-Dec and will join the 2014 Civils/Chems in Jan 2012

See blog for more details uwengsoc.wordpress.com

2. Represented Engineering at Colour me educated event, ENGINEERING RAISED THE MOST!! See article for more details.

3. Accomplished a huge amount of progress with the Executive Review Committee on restructuring our executive.

See blog for more details uwengsoc.wordpress.com.

I'll leave it at that to keep it short, good luck to all the EngSoc, Senator, and Feds candidates.

Engineering students, search uwengsoc on youtube and watch the engsoc Pulse video for more information on the EngSoc elections.

Thanks, Scott Rankin

Competitions & Canstruction



KEVIN LING
VP EXTERNAL

Hi all, there has not been a whole lot going on since my last update so I'll keep this brief. This afternoon I'll be heading to Guelph for the First Year-Integration Conference, and next weekend I'll be going to the University of Western Ontario with 29 other students from our school to compete in the OEC. If you are interested in engineering competitions and would like to represent our school next year, you will want to keep an eye out for the Waterloo Engineering Competition which will be taking place in the spring and fall terms.

Conference reports are a bit delayed, but they will be coming out once things settle down for me again. What with being sick for most of last week, I've just been try-

ing to get back on top of things lately so I haven't had a chance to compile and post the reports sent to me by the students that attended conferences. But once they are up, you'll be able to see what kind of things get discussed at conferences and see if it is something you would be interested in.

I didn't receive too much of a response about Canstruction when I sent out a call out on the mailing list, but if you are interested in participating in Canstruction please get in touch with me. Basically we are looking to build something really cool out of canned goods, and RIM has donated \$2500 on our behalf for us to compete. All the food is donated to the Waterloo Region Food Bank after the event is over.

Lastly, the Dean's Leadership Award deadline is coming up again in a few months so you may want to get cracking on putting together an application. More details on eligibility and how to apply can be found at <http://www.engineering.uwaterloo.ca/leadership/index.html>.

Apple Bottom Jeans, Budgets with the Fur



JON WARREN
VP FINANCE

I would like to start by expressing just how happy I am with our Society right now. All of our reps, directors, and exec seem more dedicated than ever to proactively trying to improve and develop our services and events to reach more and more of the engineering student body as well as the campus as a whole. It is no small task to build and support what we currently have, all while managing school and life, and so I offer my most sincere high-five to everyone who is giving it their all.

Unfortunately, our dreams often grow a bit faster than our income and this term is a prime example. The past few terms have been pretty easy going with respect to spending, however the cutbacks that had to happen this term may well be a sign of things to come. In all, our directors over-budgeted by around \$10,000 which I had to cut back out. I feel really bad about that,

but it had to be done. I tried my best to ensure that everything would still be able to run without any issue.

The main thing I would like to bring up is food. Initially, 44% of the money directors asked for was going towards food. Sometimes food is necessary, like when student volunteers are being asked to work over meal times and for several hours. However, sometimes food isn't as necessary - like when we have a fun event in the afternoon or evening at a venue that already serves food. At this point, people shouldn't need further enticing. I think it's important that directors remember to do their best to keep their budgets lean without sacrificing quality.

On my final VPF-y note, I'm going to work to better define some "rules of thumb" for directors and future exec to use when budgeting. I feel like that will help keep us all on the same page so that we don't have any big surprises come budget time.

So, I present you with your Winter 2011 budget. Use it to figure out how much you have to spend, or show it to your friends and amaze them with your knowledge of numbers, tables, and rudimentary addition!

EngSoc B Winter 2011 Budget

Category Description	Proposed	Approved
Income		
Estimated Student Fees	\$ 43,776.00	\$ 43,776.00
Estimated Orifice Sales	\$ 2,500.00	\$ 2,500.00
Student Fee Refunds :(:(-\$ 598.50	-\$ 598.50
Total Income	\$ 45,677.50	\$ 45,677.50
Expenses		
Exec Discretionary	\$ 1,000.00	\$ 1,000.00
President	\$ 1,000.00	\$ 1,000.00
VP-Finance	\$ 500.00	\$ 500.00
VP-External	\$ 500.00	\$ 500.00
VP-Education	\$ 500.00	\$ 500.00
VP-Internal	\$ 500.00	\$ 500.00
Total Exec Expenses	\$ 4,000.00	\$ 4,000.00
Fixed Costs		
Bank Charges	\$ 20.00	\$ 20.00
Telephone	\$ 850.00	\$ 850.00
Postage	\$ 450.00	\$ 450.00
Payroll	\$ 11,530.00	\$ 11,530.00
Cable	\$ 75.00	\$ 75.00
Operating Costs	\$ 2,000.00	\$ 2,000.00
Supplies	\$ 2,100.00	\$ 2,100.00
Total Fixed Costs	\$ 17,025.00	\$ 17,025.00
Director Budgets		
President		
Advertising	\$ 487.50	\$ 287.50
CRO	\$ 100.00	\$ 100.00
POETS Managers	\$ 3,228.40	\$ 2,000.00
Speaker	\$ 3,784.25	\$ 3,784.25
Webmaster	\$ 100.00	\$ 100.00
VP Education		
Academic Rep Advisor	\$ 1,128.00	\$ 900.00
Course Critiques	\$ 54.00	\$ -
Resume Critiques	\$ 650.00	\$ 400.00
SFF Rep	\$ 230.00	\$ -
Student Workshops - Car Care	\$ -	\$ -
Student Workshops - Skating	\$ -	\$ -
VP External		
Alumni Officer	\$ 350.00	\$ 150.00
Bus Push	\$ 1,500.00	\$ 1,300.00
Charities	\$ 885.00	\$ 885.00
Interfaculty Rep	\$ 50.00	\$ 50.00
National Engineering Month	\$ 850.00	\$ 650.00
Outreach Rep	\$ 375.00	\$ 25.00
Shadow Day	\$ 1,400.00	\$ 1,000.00
Women in Engineering Rep	\$ 150.00	\$ 150.00
VP Internal		
Archineering	\$ 600.00	\$ 300.00
Arts	\$ -	\$ -
Athletics - Running	\$ 220.00	\$ 220.00
Athletics - Yoga	\$ 210.00	\$ 150.00
Athletics - Skiing / Snowboarding	\$ 500.00	\$ 500.00
Athletics - Hockey	\$ 1,200.00	\$ 400.00
Athletics - Curling	\$ 1,154.00	\$ 525.00
Athletics - Rock Climbing	\$ 402.50	\$ 202.50
Class Rep Director	\$ 300.00	\$ 300.00
Enginuity	\$ 130.00	\$ 130.00
EngPlay	\$ 1,473.00	\$ 800.00
Environmental	\$ 252.50	\$ 252.50
Exchange	\$ 580.00	\$ 300.00
Frosh Mentoring	\$ 996.00	\$ 650.00
Genius Bowl	\$ 550.00	\$ 550.00
Jazz Band	\$ 1,950.00	\$ 1,250.00
Music	\$ 830.00	\$ 300.00
P**5	\$ 1,015.00	\$ 1,015.00
Semi-Formal	\$ 1,000.00	\$ 1,000.00
TalEng	\$ 1,233.01	\$ 725.00
TSN Video	\$ 40.10	\$ 40.10
Year Spirit - 2011	\$ 500.00	\$ 200.00
Year Spirit - 2012	\$ 210.00	\$ 200.00
Year Spirit - 2013	\$ 350.00	\$ 200.00
Year Spirit - 2014	\$ 400.00	\$ 200.00
Year Spirit - 2015	\$ 290.00	\$ 200.00
Total Directors Expenses	\$ 31,708.26	\$ 22,391.85
Donations		
GradComm	\$ 500.00	\$ 500.00
Iron Warrior	\$ 500.00	\$ 500.00
Orientation Week (FOC)	\$ 500.00	\$ 500.00
Other Donations	\$ 4,000.00	\$ 4,000.00
Total Donations	\$ 5,500.00	\$ 5,500.00
Total Expenses	\$ 58,233.26	\$ 48,916.85
Net Income	-\$ 12,555.76	-\$ 3,239.35







Next EngSoc Meeting

February 16, 5:30 P.M.
CPH 3607

This insert is officially affiliated with the University of Waterloo Engineering Society and is endorsed by the Chief Returning Officer

ENGINEERING SOCIETY 'B' ELECTION WINTER 2011

The Engineering Society Executive Candidates

- 
Alessia Danelon President
3A Mechanical Engineering
- 
Erin Matheson President
3A Chemical Engineering
- 
Angela Rossi President
3A Chemical Engineering
- 
Owen Coutts Vice President, Education
2A System Design Engineering
- 
Yasser Al-Khder Vice President, External
2A Mechatronics Engineering
- 
Midori Telles-Langdon Vice President, External
2A Geological Engineering
- 
Alexandra Collins Vice President, Finance
3A Management Engineering
- 
Kal Sobel Vice President, Finance
2A Mechatronics Engineering
- 
Andrew Fisher Vice President, Internal
3A Civil Engineering
- 
Laurin Benson WEEF Director
3A Chemical Engineering

A Message From Your Chief-Returning-Officer

DOUG FOURNIER
CHIEF-RETURNING-OFFICER

The Engineering Society 'B' elections are upon us once again! Whether you've voted or let elections pass you by in the past, **I compel you to take even just a few minutes this time around to familiarize yourself with the candidates and make an informed decision.**

This term, it's even easier to get to the facts you

need to make an informed decision! Check out Eng-Soc's YouTube account @ www.youtube.com/user/UWEngsoc to find a quick run down of your candidates and to put a face to a name. I would then encourage you to dig a little deeper and check out the full candidate bio's in this election edition of *The Iron Warrior* which is also posted online for your convenience @ <http://iwarrior.uwaterloo.ca>.

Have questions for the candidates? Great! Bring those questions to the **All Candidates Forum in the**

E5 Atrium just inside the main front doors on Thursday Feb 3rd at 11:30am.

Voting will be taking place online from Friday Feb. 4th until Monday Feb 7th at 12:00pm (noon). I am very much looking forward to announcing the results of the election at TalEng on Tuesday Feb 8th. Get to know your candidates, make an informed vote. This is your chance to guide the Engineering Society in the direction that's right for you!

ALL CANDIDATES FORUM → **Thursday February 3th @ 11:30 AM**
 Bring your questions! Bring your friends! It's the perfect lunch date! **E5 Atrium**

CANDIDATE PROFILES

President Candidates

Alessia Danelon

3A Mechanical Engineering



My name is Alessia Danelon and I would like to be your next Engineering Society President. I feel that I possess the experience and demeanour to accurately represent the ideas and values of the engineering students here at the University of Waterloo.

I have a plethora of experience from

my role as the President of the Engineering Student Societies' Council of Ontario (ESSCO), both from acting as president for the society, and from communicating regularly with the presidents of engineering societies across Ontario. I understand the dynamics of leading an executive team, and have experience working with and guiding a variety of personalities towards a common

goal. I have become well versed with remaining open to opinions, ideas and criticisms from council members, and am able to use feedback to improve the way a society functions.

Another skill I have gained from working with ESSCO is the ability to detach my own personal views from those of the society, and then effectively communicate them to the proper advocacy bodies in a firm yet tactful manner to ensure some level of implementation. I have attended a variety of meetings with various representatives and have experience maintaining a tactful and professional demeanour when necessary.

Despite my lengthy experience working with ESSCO, I am aware that being President of the UW Engineering Society will be a new endeavour. However, I have remained active in the Engineering Society at UW since my 1A term, be it through attending events, volunteering for initiatives, or directing them. I have recently spent a great deal of time trying to improve the services EngSoc is able to offer through my role as Academic Class Rep. Advisor and the Executive Review Committee. I have become extremely well versed in the portfolio of the President through my involvement, and

I feel I have an in-depth understanding of how this Society functions, where it is strong, and most importantly, where it can improve.

As UW Engineering Society President, the main thing I would want to accomplish, outside of the mandated portfolio, is transparency of our doings to a greater majority of the engineering students at UW. We are on our way, but there is still a lot to be done to combat the stereotype that "EngSoc is a club that only a select few 'involved' people take part in". EngSoc helps bring forth valid concerns with the curriculum, policies, while providing services and resources for the overall betterment of student life, be that socially, academically or professionally. As president, I would want to actively work with the executive team to make these vital contributions from EngSoc more visible to the general student body, and in turn improve the initiatives undertaken by society through expanded support and feedback.

In short, if you would like a president with experience, who still possesses an open mind to new ideas, vote AlessiaDanelon for EngSoc President the weekend of February 4th.

Erin Matheson

3A Chemical Engineering



Hello fellow Engineering Students. My name is Erin Matheson, I'm in 3A Chemical Engineering and I want to be your next Engineering Society President. **First, let me ask you something – what has the Engineering Society done for**

you lately? For some students, the answer to this is rather lengthy, but unfortunately for most engineering students here, the answer is usually along the lines of *'not much'*. I find this troubling and as president, I will be determined to change this sentiment and have the Engineering Society work for you.

The Engineering Society provides many useful services, such as the exam bank, resume critiques, cheap photocopying, and many others. Unfortunately, these services are underutilized or underdeveloped for use by

the majority of society members. When was the last time you got your resume critiqued? As president, I will push for informative advertising and work to fully develop these services further to cater to as many engineering students as possible.

If elected, I wouldn't just stop at improving existing services as there is so much more that the Society can provide for its students. I will work to include more dedicated study space on campus in future engineering building plans, as well as work with administration to reserve space in the meantime for students to study on campus.

Events currently put on by the society are always lots of fun, **I will work to offer a more diverse selection of events and activities that cater to a wider audience.** Having more casual events like video game or foosball night every week in POETS or even **having space reserved in the PAC/CIF for some pick-up sports for engineering students** would provide a more welcoming and casual environment to meet some fellow engineering students, or to hang out with your favourite classmates.

Have you ever had your own great idea for an engi-

neering activity? I will work to develop a more robust support system for both returning and new activities directors to encourage more people to get involved with the society and bring their own ideas to the table.

When we come together as an entire student body we can accomplish tremendous change – **we were able to change PDEng because of all of the student feedback it received.** The current executive has done a tremendous job pushing to improve the structure of the society as a whole, student-administration relations as well as our image across campus and I will ensure this work continues, but I believe I'm the only candidate who will work to have the society provide as much as it can for its students as well. A student society closely linked to its faculty is only effective if it's just as linked to the community of students it serves as well.

You pay an Engineering Society fee every term – you should get some value out of it! To view my full platform to submit any questions or comments about what I will do if elected president, or even for a good laugh visit www.erinmatheson.com.

Get more out of engineering – Vote MATHESON.

Angela Rossi

3A Chemical Engineering



Hi, my name is Angela Rossi and I am in 3A Chemical Engineering. I have been actively involved in the Engineering Society (EngSoc) since first year and I am very passionate when it comes to Engineering events, services and opportunities.

I am proud of the reputation that Waterloo's Engineering program has developed to date and look forward to seeing its impact continue.

Over my past 4 academic terms I have organized events such as Semi-Formal (thrice) and Canada Day 2010 as well as numerous Charity events like pancake breakfasts, float day, Movember and a Terry Fox Run. I have participated as a leader in Engineering Orientation Week the past two years and am looking

forward to O-Week 2011. This term I am a Semi-Formal Director, a Bus Push Director and a Charities Director.

My platform is based on three pillars which I intend to focus my time and energy if I were elected as your Engineering Society President.

Students

The Engineering Society was started for and is maintained by students for students. As such, I want to continue to reach out to all Engineering students and show them what the Engineering Society has to offer (services, clubs, events, opportunities, etc.). I would try to visit classes on a biweekly basis to elicit student feedback and encourage open communication between the Society's executive and its members. What more would you like EngSoc to offer (e.g. a new team)? How can EngSoc better serve you? How can EngSoc make your university experience unforgettable? What are your concerns, opinions and ideas? How can we make EngSoc run more efficiently and effectively? I want to voice student opinions, inspire change and see results.

School

I would like to continue to improve the Engineering Society's image through continued interfaculty events, such as Semi-Formal, and campus wide fundraisers, like Colour Me Educated. I believe that it is important that EngSoc have a professional and friendly reputation with the other societies, and think it is important that EngSoc encourage the idea of "One Waterloo".

Community

It is important to me that the Kitchener Waterloo Community be aware of all the positive things that the University of Waterloo and specifically the Engineering Society do for our local community. I would try to regularly communicate with the local paper and ask them to provide some media coverage when an event directly benefits the community, like a food drive, toy mountain or car wash. Waterloo students have hearts of gold and deserve some credit for our generosity.

My name is Angela Rossi. I am passionate, personable and professional and I want to be YOUR Engineering Society President. Thank you.

Vice President, Education Candidate Owen Coutts

2A System Design Engineering

Hi Everyone!

My name is Owen Coutts and I'm running for VP education of the engineering society.

The job of VP education is to lobby on behalf of students to administration. In the last few years, the VP Educations have worked on issues such as PD-Eng and WAT PD, how co-op and CECS works, and expanding the availability of engineering counselling.

I think that I am the right person to continue the job of my predecessors and to start work on new initiatives for the following reasons:

• **Experience:** I have been attending attended multiple meetings on behalf of the engineering society as Co-op Rep and PD Rep. I have an understanding for how things work and how things get done.

• **Approachability:** One of the most important jobs of a VP education is to get feedback from engineering students and act upon it. Despite my unusual stature I am very friendly and will treat anyone who brings forward issues with respect.

• **Work Ethic:** I am a person who can devote a lot of time to this executive position. A lot of time needs to be spent to make progress. I think I am uniquely qualified to spend the time required working on issues that face students.

One of the main things I want to work on is Co-op and CECS: As the organizational structure changes, I want to make sure that the students' voice is heard. I'd like to help shape the answers to questions, such as "How will the new role of field coordinators be de-

finied?" and "What are different parts of the organization (and different parts of our co-op fee) doing to improve our co-op education?"

To find out more about my positions please come out to the EngSoc debates on Thursday or come find me and talk to me.



Vice President, External Candidates

Yasser Al-Khder

2A Mechatronics Engineering

Hello!

Before I begin talking about my platform and qualifications, I would just like to say thank you for taking the time to read the candidates' articles. I really appreciate it, and I know that you will take these as seriously as we do.

Now that that is out of the way, let's start with some introductions; my name is Yasser Al-Khder, and I want to represent you as your next Vice President External. I am currently in 2A Mechatronics Engineering and before I came to Waterloo I lived roughly on the other side of the Earth in Dubai. I'm very passionate about the Engineering Society, and I think that it does a great job representing the engineering student body and providing valuable services. However, I definitely see room for improvement and I want to contribute as much as I can to make EngSoc a better society for all of us.

One of the main duties of the vice president external is to represent the Engineering Society in provincial and federal engineering organizations such as Engineering Student Societies' Council of Ontario (ESSCO) and Canadian Federation of Engineering Students (CFES). I plan to represent you in these organizations and bring back any ideas and concerns

that we can benefit from.

With that being said, I want to focus on strengthening relations between EngSoc and other student societies and organizations within the university. I plan on improving inter-faculty relations by attending council meetings of other societies and invite them to our council meetings. I also plan to set up joint events with other faculties, maybe even have charity competitions and challenge other faculties to raise the most money, similar to The Colour Me Educated Campaign.

In terms of the directorships that are under the responsibility of the vice president external, I plan to be in close contact with the directors, especially prior to and at the beginning of the term so that we can establish goals and come up with new ideas for the directorships.

Lastly, I will follow the footsteps of the current executive team and try to be as professional as possible so that we are taken seriously as a student society. I will also create documentation describing the different directorships and detailing how they run, for smoother transition between directors.

Here are some of my qualifications and experiences that will show you that I am qualified for the job:

- Passionate about the Engineering Society and willing to improve it
- Have been the Mechatronics 2014 class rep since 1B
- Attended several external conferences representing Waterloo Engineering Society, where I was the head delegate for one of them
- Currently sitting on the Federation of Students (FedS) Council as an Engineering Councilor
- Appreciate the beauty of point form as opposed to a wall of text

If you have any questions about me or my platform, please do not hesitate to send me an email at yyalkhder@uwaterloo.ca. Or better yet, ask me in person!

Thank you for reading, and don't forget to vote!



Midori Telles-Langdon

2A Geological Engineering

The University of Waterloo has one of the most notoriously involved engineering student populations in Canada. We are renowned for our high number of involved students and the sheer scale of our events, which all relates back to our amazing engineering spirit and pride.

My wish to be your Vice President, External is based on this tradition of overwhelming student involvement. I want to be the one to represent our students' unique needs and perspectives to external organizations such as the Engineering Student Societies' Council of Ontario (ESSCO) and the Canadian Federation of Engineering Students (CFES). As our student body grows, with increasing enrollment numbers across the board, the voice of our student body grows stronger and stronger. As we now represent a larger segment of the engineering student population our voice within ESSCO and CFES needs to grow stronger as well. I want to be this strong voice.

Closer to home, I would like to increase our vis-

ibility within the Waterloo community. I propose to do this by increasing the number of community-based events we host, such as Bus Push. These events present a strong, positive image of engineering students to the community as a whole, which will improve our interactions and relationships with community members. I would like to propose we host a student design team exposition event in Uptown Waterloo Square. Such an event would showcase some of the incredible work our students have accomplished.

On a professional level, I would like to ensure that we have representation at all future meetings of the Professional Engineers Ontario Grand River Chapter. These meetings provide us with valuable opportunities to network with local professionals and learn of any upcoming changes to licensing requirements. This information could then be passed on to the student body by way of the new UW Engineering Society blog, which I would post to regularly.

My desire is to keep students informed. Our ex-

ternal connections provide us with a lot of amazing opportunities, and I want to make sure you know about them. For example, attending conferences is a wonderful experience that I would like to see more UW students benefit from; students like you. For more information about my platform please visit www.eng.uwaterloo.ca/~mmtelles. Now that you know more about the candidates and their platforms I do hope you will take the time to vote February 4th to 7th. Your opinions are important, and without input from students the Engineering Society has no purpose at all. So make your voice heard: vote!



VOTE Online → **FEBRUARY 4-7**

Vice President, Finance Candidates

Alexandra Collins

3A Management Engineering



My name is Alexandra Collins. As you may have guessed by the location of this article, I am running for VP Finance.

Like all the other executive candidates I have a long history of EngSoc and Waterloo involvements that qualify me for this role. But my "grooming" for this position started long before my university days.

As a 3A Management Engineering student I have a passion for efficiency, supply chains, and the occasional binary tree, but my first love is finance. I can pinpoint the development of this love back to the tender age of four when, at my mother's instance; I maintained a general ledger for my weekly \$1 dollar allowance. Now at 21 I am ready to keep track of the Engineering Society's allowance, so here is my pitch:

1. Involvement: I would like to work closely with the executive team and directors of the Engineering Society during each term's budget preparation and monitor the spending throughout the term.

2. Clarity: To ensure that EVERYONE knows where their money is going I am proposing to publish updates on the budget on a more frequent ba-

sis.

3. Stability: I would like to investigate cost saving methods on the current spending so we can better support the diverse services provided by EngSoc and have the financial stability to support new initiatives that may arise.

4. Feedback: Using the EngSoc website or another medium, I would like to implement a way to gain your feedback on topics like budget recommendations or new products for Novelites.

So, from February 4th to 7th you have the opportunity to elect an executive team that is passionate about the future of the Engineering Society. Let Alexandra Collins be your first choice for VP Finance.

Kal Sobel

2A Mechatronics Engineering



Hi, my name is Kal Sobel, from the class of 2014 Mechatronics Engineers. I like long walks on the beach, the internet, and most of all, EngSoc. I am running this term for VP-Finance, and if elected I have some big ideas I'd like to see happen.

I would first like to say that I love the new look of Novelities, and I feel that the outgoing VP-Finances had the right idea to give new life to Novelities. I plan on keep-

ing up their work after their term is over by continuing to rethink and revitalize the operation of Novelities. I also believe that the current financial management of EngSoc under the direction of the outgoing VP-Finances is going very well, so I plan to continue their high standards and practices throughout my term. If elected, I will meet with the outgoing VP-Finances prior to the end of term to discuss a smooth transition towards our goals.

Some of the major ideas I would like to see in place are:

- To get awareness of Novelities out to more people, especially first-years and incoming students. I would like to place medium sized Novelities advertisements in high traffic areas such as near the RCH fishbowl, in the entrance of CPH foyer, in the WEEF lab, and in or near the Engineering Office, along with a "new products" advertisement to get awareness of any new offerings of Novel-

ties.

- To uphold the high standards put in place by the current VP-Finances, and to work in close proximity with them before the beginning of my term to ensure that your money is used efficiently towards the best interests of the students and the society.

- To implement both a suggestion box inside of Novelities, and a mini-catalogue inside of the Orientation Kits which contains both pictures of our current products as well as a place for suggestions to be given.

Finally, I would like to conclude by saying that although I may be a little odd and scary looking, I am a very approachable person, and will gladly chat with you about anything you'd like to ask, suggest, criticize, or rant about; after all, if elected your VP-Finance, I will serve you, the citizens of the Engineering Society.

Vice President, Internal Candidate

Andrew Fisher

3A Civil Engineering



Hello Engineering! I hope your day has been fantastic so far! My name is Andrew Fisher and I am running for the Vice-President Internal position. I am from the small town of Dorchester Ontario, and am currently in 3A Civil Engineering.

If you have taken a look at my posters, you may have noticed that my campaign focuses on the slogan "Let me bring you into the picture." Let me delve into this further. My main goal if elected as Vice-President Internal is to expand the positive image of the Engineering Society to those

who don't already participate in Engineering Society events. This is of huge importance to me as it will make the Engineering Society more inclusive than it already is, and create a faculty which is united as one. This 'united as one' philosophy will help students feel more comfortable coming to Engineering Society events which will in turn increase event attendance. Some ideas to make this happen are revamping the P**5 (Paul and Paula Plummer Participation Points) system, create a new form of video advertising and continue to expand the role of class rep directors and class reps.

My second goal is to make it easier for directors to plan their events. I hope to make event planning less of a logistical nightmare and more of an enjoyable experience. This will be done by creating a more comprehensive archive of past directorships which will include the rooms booked, companies used, contacts, budgets, and tips for improvement. To supplement this, I will maintain a strong communication link between myself

and the directors through a deadline planning session, periodic meetings and email updates.

So do I have what it takes to make this happen? Absolutely! My strong organizational and time management skills which I possess, and will further develop as a member of the Federation Orientation Committee will be a huge asset when overseeing the 23 directorship positions under the Vice-President Internal. I have a strong work ethic and will do everything in my power to ensure each event runs as efficiently and successfully as possible. To supplement this, I have held numerous directorships in the past and understand the challenges faced when planning a faculty event. My passion and dedication that I will bring to the position of Vice-President Internal will not only benefit the Executive Team, but to the students who we represent in the Engineering Society. Take the time this weekend to vote and remember, "Let me bring you into the picture."

Information on How to Vote

You may have browsed through the candidate profiles, read them, or just looked at the pictures, and perhaps now you're wondering how to vote. See below.

You have two options to vote:

Voting Online - You will receive an email regarding how to vote online. When you receive your email, click on the link provided in the email and follow the instructions to cast your vote. If you do not receive an email from by Saturday, February 5th, please contact the CRO at dfournie@uwaterloo.ca in order to resolve the situation. Voting online will be open from February 4th-7th. Please note that the email will be sent to the email address you have registered in QUEST.

Voting in Person - During the election, a voting booth will be set up near the Engineering CnD in the Carl Pollock Hall (CPH) Foyer. Show up at the booth on February 4th or 7th and you will be able to put in your credentials to vote!

Make an Informed Decision!

If you want to find our more information regarding each candidate and their platform, read their candidate profile. If you would like more information, check out their website and posters and come out to the Election forum where each candidate will be answering questions from fellow engineering students like you. **The forum is taking place inside the E5 atrium at 11:30 AM on Thursday, February 3, 2011.**

You will be voting for the Engineering Society Executive candidate positions for President, VP External, and VP Finance as they have more than one candidate running. The positions of VP Education, VP Internal, and WEEF Director are acclaimed pending a 2/3 majority vote of the Engineering Society Council at (insert next engsoc meeting here). In the event of the tie, the CRO will have sealed his ballots in an envelope. The envelope would then be opened to reveal the tie breaking vote to decide a winner. If a ties does not exist, the envelope containing the CRO's votes will be destroyed.

If you have any questions regarding the election procedure, please contact the CRO at dfournie@uwaterloo.ca

WEEF Director Candidate Laurin Benson

3A Chemical Engineering

Hello UW Engineering! My name is Laurin Benson of Chem 2013 (you may not recognize me without my dashing Engplay moustache) and I am running for Waterloo Engineering Endowment Fund Director.

My involvement with WEEF started in 2008 (The Year of the Potato, in case you were wondering) as my class WEEF Representative. I then moved to WEEF Assistant Director last year and have since supported the current Director in facilitating all of WEEF's responsibilities. We have seen some great accomplishments like WEEF's 20th Birthday, the 2009-10 proposal seasons, the opening of E5 (thanks to \$ 1 million from WEEF) and record WEEF participation rates.

As WEEF Director I will make sure that WEEF keeps accomplishing bigger and better things. My

goal each term will be to make sure your money goes to the right places. And we are not talking about pocket change here folks - I'm talking about a principal of over \$ 9 million. By improving the funding proposal and student review process, I will ensure that it is easy for you, your department and your student team to make the UW Engineering Undergrad experience the best it can possibly be!

"Why do I want to do it?" you may ask. Well, to put it simply, WEEF IS GOOD! Amidst all of the questionable fees we pay each term (I'm talking to you, CECS) your contribution to WEEF goes unbelievably far. Like those new lab computers? THANK WEEF. Enjoying that new machine shop equipment? THANK WEEF. Having fun roaming the lovely halls of E5? THANK WEEF. Impressed by UW student

teams making an impression in global competitions? THANK WEEF. I think you get the picture.

As WEEF Director I will make sure that all Engineering Undergrads can continue to THANK WEEF for many terms to come!



FEDS Councillor and Senate Candidates



ADRIANA CAMERON
3T MECHANICAL

On Tuesday February 8th, the voting period for the Federation of Students (FedS) election will begin. All UW undergraduate students will have the opportunity to vote for a President, a VP Administration and Finance, a VP Internal, a VP Education, and a Senator at Large. Additionally, all engineering undergraduate students will have the opportunity to vote for an Engineering Senator and three Engineering Councillors.

The voting period will begin on Tuesday February 8th and will last for 60 hours. Voting will take place online at www.votes.feds.ca.

Information about the election, the duties and positions, and the candidates can also be found at www.vote.feds.ca.

All candidates running for the Engineering Senator position, or the Engineering Councillor position were contacted by The Iron Warrior, and given the opportunity to submit a write-up summarizing their experiences and their platform. The following candidates choose to submit a write-up.

Engineering Senator Candidates

The Senator is responsible for attending monthly University of Waterloo Senate meetings, and voting on behalf of students.

Trevor Jenkins, Candidate for Engineering Senator

I'm Trevor Jenkins and I'm currently in

3A Management Engineering and running to be your Engineering Senator.

As the highest academic body of the university, Senate is the final place where students can ensure policies and changes that affect their undergraduate careers are in their best interest. Over the past two years, major issues that have come up include Frosh Week changes, the Student Transition Plan, and changes to 1A engineering promotion rules. Having someone who knows what's happening, gets feedback, and who is a strong voice for students is imperative. I can be that person.

During the past year I've been an Engineering Councillor on the Federation of Students' council. Council elected me to sit on the Education Advisory Committee. I've been kept up-to-date on a number of educational issues that are affecting us, and students in other faculties, and provided feedback to top administrators on numerous issues, including the way that the academic integrity on-line tutorial is run. Additionally, I was Editor-in-chief of *The Iron Warrior* where I was highly involved of knowing what was going on around campus.

If you choose to elect me, I can make five guarantees to you:

- 1) Get student feedback on issues that impact their education;
- 2) Be the voice of engineering students;
- 3) Provide updates from the Senate at EngSoc meetings and in *The Iron Warrior*;
- 4) Build a collaborative relationship with EngSoc executive to propel student concerns to the forefront;
- 5) Be approachable to hear your concerns about the quality of your undergraduate education, whether in person or through e-mail.

If you have any questions or concerns about any point of my five guarantees, feel free to give me a shout at t.k.jenkins@gmail.com.

Cheers!
Trevor

Jordan Lui, Candidate for Engineering Senator

Hi there, Jordan Lui here!

I want to be your Engineering Senator because I have always been interested in the university administration's decisions and how they affect the lives of students.

I started out as an academic rep for my class and found that I interacted more with profs than I initially thought I would. Particularly rewarding parts of that experience was being able to voice the concerns of the class and knowing that I was "in the loop" with what is going on in the Chem Eng department. I found particular satisfaction in talking to profs which the class had trouble learning from, and trying to provide solutions so the professor could confidently teach and so the students could learn.

In my second year I became a FEDS Engineering councillor and entered the full breadth of student politics. I served on the Internal Funding Committee which is responsible for discussing and distributing funds to clubs and services that apply for it. While I enjoyed this experience immensely, I didn't feel that I fundamentally affected the academic lives of students with the decisions I made or the things I learned. I felt that clubs and social events are important things to students, but I want to be involved in the bread and butter of student academia; course offerings and professor hirings that affect student classes.

I feel that Senate will bring me into this and that I am motivated and qualified to serve as your Engineering Senator.

Jordan Lui

PS Vote on Feb 8, 9, and 10! Be there or be a square and a rhombus at the same time.

See SENATOR on Page 14

P.Eng. THE LICENCE TO engineer in Ontario



To practise as a professional engineer in Ontario,
you must be licensed by Professional Engineers Ontario.
It's the law.

Take your professional career
into your own hands.

For information on licensing—and how the PEO Student Membership (SMP)
and Engineering Intern Training (EIT) programs can help you get there—
visit www.peo.on.ca or www.engineeringstudents.peo.on.ca



FEDS Councillor and Senate Candidates

SENATOR from Page 13

Ben Selby, Candidate for Engineering Senator

Hello UW Engineers! My name is Ben Selby and I am running for the position of Undergraduate Engineering Senator. I am currently on work term having finished 2B Systems Design.

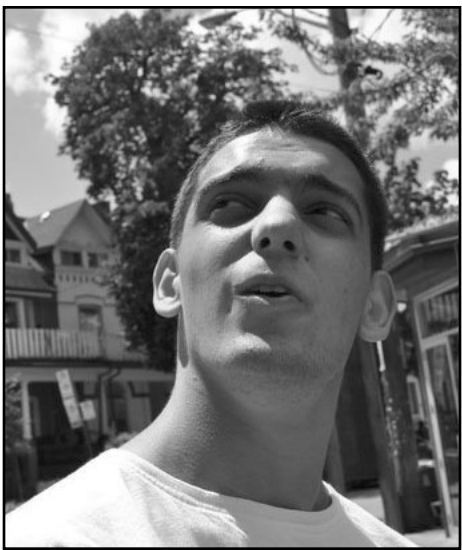
The number one reason to vote for me is my vision of expansion. Current Senator Jay Shah has done an outstanding job of making this role more visible to the student body and therefore more accountable for its responsibilities. Given the magnitude of some of the issues Senate deals with, this is something that certainly needs to continue.

I want to make the position of Senator better informed so that issues concerning engineering students can be more easily caught and advocated. I think that the answer to this really lies in networking. The Senator should have as many connections as possible so he/she can better understand what is going on in the school. One way I plan to do this is to attend and/or receive updates from other governing bodies such as FUGS and SUC. This will allow for greater examination of the issues which are eventually presented to Senate and therefore greater preparation in their advocacy.

I will investigate the possibility of developing a new council which is made up of one undergraduate member of each engineering department. The goal behind this council is to remain informed on department changes so that these issues can be addressed directly. In addition I plan to work closely with both VP Educations so that I can remain informed on engineering-specific developments.

As Senator Shah has done in the past, I will provide updates in the Iron Warrior and at each EngSoc meeting.

I have the vision, the passion, and the knowledge that would make a good senator. So please, vote Ben Selby as your Engineering Senator at www.vote.feds.ca between February 8th-10th!



Adhiran Thirmal, Candidate for Engineering Senator

Tired of Confusion?

Decisions affecting engineers are made every month by FEDS, but how many did you hear about during the decision process?

As Senator, I want to keep Engineers posted about the decisions affecting them. I will have a few town hall meetings and focus groups but the tool I will use most often is Facebook and Twitter. Allowing students to contribute whenever they want will ensure major decisions won't blind side students.

Ready to get it done? With a proven track record of putting my plans into action and getting positive results, I will extend my dedication to this senator position.

I have already increased communication in my current roles. A record number of participants attended Resume Critiques, which is a direct result of my effective advertising

techniques. Course critiques this semester will be revolutionized as I increase communication mediums between academic representatives and their respective classes.

Got an Idea... I'm always available to listen! I am constantly active on Twitter, Facebook and BBM. I always listen to ideas and try my best to implement them.

Lots of students at Resume Critiques wanted help with interviews, and many wanted to see an interview workshop. With the help of the VP Education, and dedicated volunteers we were able to put together the event within a few weeks.

If you don't know me, ask someone around you? With the Resume Critiques and Course Critiques directorships, I need to interact with every Engineering Class on campus. With a widespread network, my goal of increasing communication can be achieved!

For those still wondering, I am a 3rd year Mechatronics student that is dedicated to the success of my peers. Vote Adhiran Thirmal as Engineering Senator at vote.feds.ca!



Engineering Councillor Candidates

The major duty of a Councillor is to attend and participate in council meetings. Councillors are expected to report to the Faculty of Engineering at EngSoc meetings as well as through updates in the Iron Warrior. Councillors must also solicit feedback from students on issues and promote interest in FedS. Councillors are expected to watch over the executive in the fulfillment of their job duties. Note that in addition to the below candidates, Erika Janitz and Juzer Sharafal are also running.

Yousif Al-Khder, Candidate for Engineering Councillor

Hello Engineering,

My name is Yousif Al-Khder and I am running for the Federation of Students Council. I just finished 3B Management Engineering this past fall (oh wow I'm getting old!) and currently on my 5th work term in Toronto, which is the reason why I don't have any posters up! I'm working with the Consulting division of Deloitte and my job entails me using the BlackBerry PlayBook!

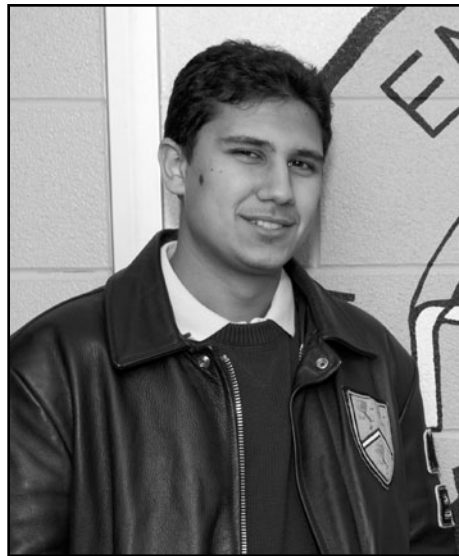
But enough about me and more about this election. I want to represent you at the Federation because I believe that I have the right experience and skills that qualify me for this position. I'm heavily involved with the Engineering Society and therefore know what problems there are to bring up to Council. I have a good relationship with the executive and other members of the Society and I'm not afraid to consult them about any problems that they believe should be brought up to the Federation.

To add to that, I have been a director with the Engineering Society since fall 2008; my latest one being the PD rep, where I was a member on the PD 21 curriculum committee. I was also involved with the

Iron Warrior and was the layout editor for a few terms last year and the year before.

In addition to my involvement within Engineering, I have been a FedS councillor for the past 8 months where I and my colleagues represented you on very critical decisions, such as the disbandment of CASA (Canadian Asian Student Association), approval of the \$1,000,000+ budget, and on initiating a review to evaluate our relationship with external organizations. I am also a member on one of the committees of Senate.

Please visit vote.feds.ca to learn more about this election and don't forget to vote on February 8th - 10th!



Syed Albiz, Candidate for Engineering Councillor

Fellow engineering students, I am Syed Albiz, and I am fascinated by machines. University of Waterloo, it too is a machine. Crankshafts, a flywheel, an eccentric disk. Know the machine with workers, yet devoid of function, pure movement, rotating, thrusting, a machine of desire. The round shapes and jerking movements become one within the image of two clocks. Hourly shifts slowly mark the passing of the Waterloo working day. Eclectic groups of our workers, march in unison, the exhausted half as fast as the fresh. Painfully, they move their feet, but are not walking. Only shuffling through their shifts, waiting for them to end, for a small iron sigil to release them from bondage.

Looming ahead there will be a time when the operation of the machine becomes too odious. It will make you so sick at heart, that you can't take part; you can't even passively take part. Cry to yourself for what you've wrought, and realize that you've got to put your bodies upon the gears and upon the wheels, upon the levers, upon all the apparatus, and you've got to make it stop. Explain to the people who run it, to the people who own it, that unless you're free, the machine will be prevented from working at all, and don't forget to submit your explanation at least twice.

Join the circus, vote Rhino!

Note: In accordance with party policy, Syed refused to sign the statement of understanding of the duties of a councillor. He



is still eligible to run as signing this statement was optional. Weird, isn't it?

Trevor Jenkins, Candidate for Engineering Councillor

Hey Everyone,

I'm Trevor Jenkins and I'm currently in 3A Management Engineering. I've been a FedS Councillor for the past year and have learned a lot from representing engineers on Council.

During the past year, I've been one of the most active members of council. During my tenure, fellow councillors have elected me onto the Board of Directors, Education Advisory Committee, Internal Funding Committee and Long-Range Planning. I have also had the opportunity to represent UW students at the Fall General Assembly of the Ontario Undergraduate Student Alliance Meeting. To help get news out, I started the FEDS Councillor updates at EngSoc meetings and in The Iron Warrior, to help keep students informed about what's going on in the Federation.

If you choose to re-elect me, I can make six guarantees to you:

- 1) Help you understand why FEDS matters and why you should care;
- 2) Be a strong voice for Engineering students;
- 3) Continue with Councillor updates at EngSoc meetings and in The Iron Warrior;
- 4) Investigate allocating Engineering Council seats based on A-Soc/B-Soc structure;
- 5) Establish a strong relationship with EngSoc executive to ensure student issues are heard at all levels;
- 6) Be approachable and act on any of your concerns.

I've also been heavily involved within the Engineering Society over my past three years as well. I've been the Editor-in-Chief for The Iron Warrior, and currently sit on its Advisory Board. I was also the Consulting Engineering Director at the Ontario Engineering Competition in 2010, and will represent Waterloo B in the same category this February at Western. I've also held numerous directorships within the society, including POETS Programmer.

I'm always around campus and am always just an e-mail away. If you have any questions for me, please don't hesitate to contact me at t.ek.jenkins@gmail.com.

Cheers,
Trevor



FEDS Executive
Elections too!

Voting Begins
February 8
ONLINE

Results Announced
February 11

WEEF Dates and Class Reps



**GRAHAM
STONEBRIDGE**
WEEF DIRECTOR

Donation returns closed up without a hitch on Jan 24th. Finance is now doing their magic to ensure that students who have requested their return do indeed get it. Statistics are not yet available for how many returns were requested, from which classes and from which years; they should be available for the next Iron Warrior issue.

Submissions of WEEF Proposals are now being accepted. For information on how to make a proposal visit http://www.weef.uwaterloo.ca/proposal_form.html – you'll see just how easy it is!

Visit the list of class reps at www.weef.uwaterloo.ca/People.html to see if your

class has a rep. If your class does not have a rep, that means your class collectively gets zero input into where the \$60,000 gets allocated this term, so it is in your best interest to get a rep. If you would like to be a part of the funding decision this term, send an email to weef@uwaterloo.ca

Don't forget, WEEF is designed to be a support for students by students – its 100% up to the council of students (reps from each class) to decide where we put the money.

KEY DATES:

Feb 15: Proposals are due

Mar 1, 3: Proposal Presentations

Mar 7: Funding Council Decisions Made

WEEF will also be holding an Annual General Meeting this term. Look out for more details about when and where this will be held.

Elections, SLEF and Jokes



PETER KELLY
VP INTERNAL

It's that time again where I write something and you may or may not read something. I don't have much to talk about this issue. Upcoming events can be seen in the calendar below. Engsoc elections are happening now, so read up on the candidate's platforms in this issue and make an informed decision when you vote Feb. 4 to 7. Come out to TalEng Tuesday, February 8th at 7:00pm at the Heuther Hotel. Sign up to perform by emailing owen@owencoutts.com.

Also, I have been selected to represent Engineering on the SLEF Council [Student

Life Endowment Fund]. SLEF is essentially like WEEF, but focuses on funding student life projects. In the past SLEF has contributed funding towards couches and tables in POETS and this term there is roughly \$50,000 to be given out. If you have an idea as to where this money should be going send me an email at bsoc.vpint@gmail.com and I can help with filling out the form. Or you can do it on your own; I believe you're competent enough. Also you can visit www.funding.feds.ca/sle_fund for more information.

And to conclude: here is a series of jokes:

How do you scare a moose? Sneak up on him and yell cariBOO.

How do you make a moose blush? Tell them that they are "deer" to you.

What does a moose use to cure heart burn? Takes an ELKeselser.

Scholarships from SFF



**KIRSTEN
HOEDLMOSER**
4B CHEMICAL

Many students have no idea what the Sanford Fleming Foundation, or SFF, provides for Engineering students. There's a \$6 fee on your tuition statement every term, but where does it go? Who does it help? How does it affect you? How can students take advantage of the services they provide?

Perhaps one of the most visible contributions of the SFF is the Waterloo Engineering Competition (WEC). Many of your classmates may have participated in this competition, which is used to select teams for the Ontario Engineering Competition (OEC). Along with Junior Team Design, Senior Team Design, and Consulting Engineering, the Innovative Design Competition is held in approximately Week 8 of the Spring and Fall terms. SFF also runs Debates and Technical Speaking competitions around the same time as WEC. All UW undergrads in Engineering are eligible

to participate.

SFF is also very well known for their contributions to student awards. Here's a quick primer on a sample of the scholarships and awards they offer (see table).

In addition to awards for students, the SFF also provides awards for Teaching Excellence and for outstanding TAs. They provide travel grants for students presenting papers at academic conferences, and scholarships for students going on exchange through one of Engineering's exchange programs. Finally, the SFF also provides emergency short-term loans for undergraduate students.

As you can see from a quick glance through the awards they provide and initiatives they support, the SFF is incredibly involved in Engineering student life here at UW. For more information on what they do, award deadlines, and how to apply, visit www.engineering.uwaterloo.ca/~sff/. Watch for award deadlines on the EngSoc calendar so that you don't miss out on the scholarships available to you, and be sure to keep an eye out for their posters on bulletin boards throughout the Engineering buildings!

Award Name	Available For	Award Amount
Karen Mark Scholarship	3 rd year undergraduate female engineering student, for academic achievement and involvement in student life	\$1,000
SFF Memorial Leadership Award	Intermediate-level undergrad in engineering, for outstanding contribution to engineering extra-curricular activities	\$1,000
Undergrad Research Assistanceship Award	Supports research assistanceships co-supervised by profs in Engineering and other faculties	Max \$300
Undergrad Co-op Award	Supports academic co-op placements supervised by profs in Engineering and other faculties	Max \$1000
Work Term report awards	Awarded to Engineering students in each class with the best Work Term report	\$200 - \$300
John Fisher Leadership Award	For graduating students who has shown outstanding leadership throughout academic career	Certificate, citation, and \$1500
Award for Academic Excellence	For graduating students, one per stream	

The Faculty Cares About Us! I think...



**ALEX HOGEVEEN
RUTTER**
VP EDUCATION

Events

Interview Skills Workshop-Friday, February 4th @ 4:30 PM in RCH 306. Come out if you need help with your interview skills and want guidance and practice.

Co-op

Waterloo Works is behind schedule, but has improved. The target date will be determined next week, and I will let everyone know as soon as they do. It also ap-

pears as though the co-op fee will likely not increase this year, mostly as a result of the University's pay freeze.

I received greater clarification regarding unpaid co-op jobs. The exemptions must be PRE-APPROVED, which basically means it will be very difficult to arrange your own unpaid job. I am looking into this, but make sure you have lots of communication with co-op before arranging such a position.

Policy

A lot of projects and policies are in the works, so hopefully I will have more to report next issue, but I don't want to get anyone overly excited. First-year office is

looking at several new initiatives, and I will report more when I have confirmation. Also, I am meeting with the Student Success Office next week, who have a mandate to help undergrad students perform better. Let me know what resources would have helped you succeed as a first-year, and I can look into helping the Student Success Office develop it.

Celebration for the demise of PDEng


The new first-year PD course is running smoothly and it should be fairly straightforward for students to use either PDEng (for now) or PD to complete their degree requirements, but make sure you contact the team if you have fallen behind. The

formal motion to disband PDEng courses entirely as of Fall 2012 passed Engineering Faculty Council last week.

Communication from Faculty

You can now follow the Faculty's Student Liaison on Twitter-MegBauman. Engineering Computing has also started a blog. <http://engineeringcomputing.blogspot.com>. On a related note, I've had a lot of administration reply to my emails at strange hours of the night. Hopefully, this is a sign that faculty in general are becoming more committed to communicating with students? Time to start bothering admin and faculty more to let us know what's going on?

Upcoming Events Calendar

Wednesday February 2	Thursday February 3	Friday February 4	Saturday February 5	Sunday February 6	Monday February 7	Tuesday February 8	Check out up-to-the-day event postings on the EngSoc website at engsoc.uwaterloo.ca 
Vision 2015 Town Hall 5:30PM E5 3101	EngSoc Election Forum 11:30AM E5 Atrium Interview Skills Wrksp 4:30PM RCH 306	EngSoc Election Voting Opens	Iron Ring Ceremony and Iron Ring Stag		Iron Warrior Meeting 5PM E2 2349 EngSoc Election Voting Closes	Running Club 5PM POETS Patio TalEng 7PM Huether Hotel	
Wednesday February 9	Thursday February 10	Friday February 11	Saturday February 12	Sunday February 13	Monday February 14	Tuesday February 15	
Eng Coffee House 8PM E5 Artium	Running Club 5PM POETS Patio Eng Orientation Week Directorship Apps Close	IW Submission Deadline 6PM			Iron Warrior Meeting 5PM E2 2349	Running Club 5PM POETS Patio	

BIG THINGS with Will Zochodne

Wärtsilä-Sulzer RTA96 Engine (or what your Honda does not have)



WILL ZOCHODNE
3B MECHANICAL

Spec: 14 cylinder, 2 stroke, turbocharged diesel engine

Horsepower: 108,920 bhp

Torque: 5,608,310 ft•lbf at 102 rpm

Fuel Consumption: 3.80 liters per second

Weight: 5.1 million pounds

The RTA96 Wärtsilä-Sulzer diesel engine is BIG. So big in fact, that the super ships that this monster powers must be built around it. In a single week of running, this engine will drink enough diesel to fill up an Olympic sized swimming pool. Clearly the operators of this mega engine are not overly concerned about the green movement – so I'm going to suggest using baby seals as a fuel additive.

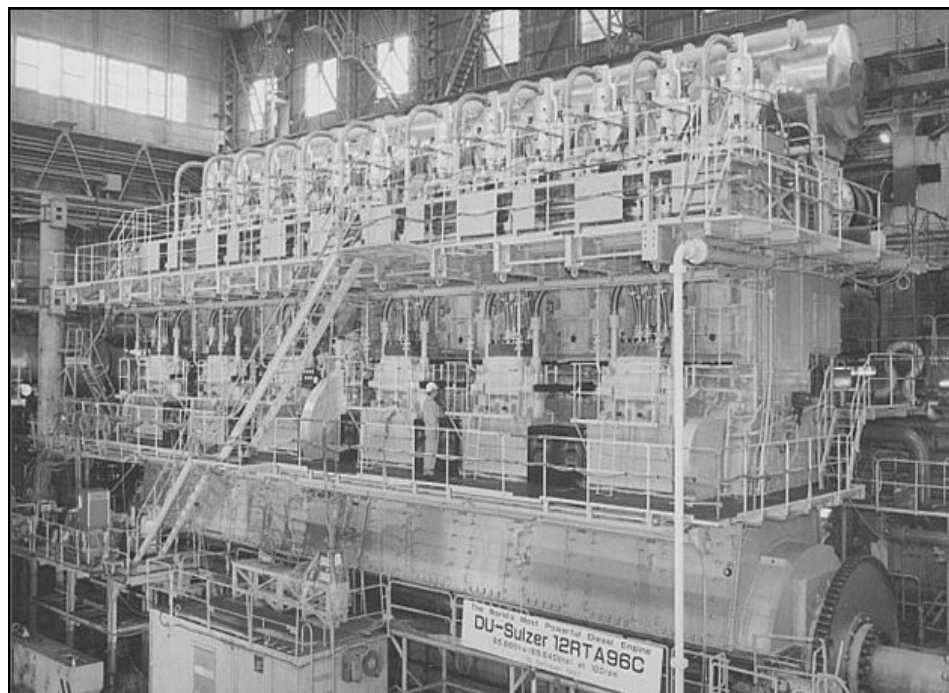
Let's talk about rotational inertia. The crankshaft (spinning output shaft of the engine) weighs 600,000 lbs on its own! When the engine is running at its normal speed

of 100 rpm, moving this giant crankshaft would require the same rotational energy as spinning a 50 ft Ferris wheel at 374 km/h. The occupants would likely explode from the g forces.

In terms of torque, if you were able to fit RTA96 engine into a standard road car, it would accelerate you from 0 to 100 km/h in 0.15 seconds. In my opinion, such a violent death would be worth every penny required to steal a freight ship engine.

Now it might seem like this engine is a monstrously inefficient beast. Is it? A natural solution would require accumulating some 108,920 horses and put them on a boat. This comes out to be about 109 MILLION pounds worth of horse. Since the engine only weighs 5 million pounds in comparison, the engine is about 2180% more efficient. If we were to use another animal as reference, say an electric eel, you would require 10,892 eels to produce the required amount of electrical energy to match the output of the RTA96. Practical? Maybe not. Super badass? Yes.

Big things rock!



The Wärtsilä-Sulzer RTA96 Engine, in all it's glory



Baby seals: Could improve your engine efficiency by 3%! (maybe)



374 km/h Ferris Wheels: Now an extreme survival sport!

As always send article suggestions to w.zochodne@gmail.com

Cyber Warfare: The Next Battlefield



ALEX HOGEVEEN RUTTER
3B ELECTRICAL

In some respects, the atomic bomb should have ended war as we know it. Weaponry gradually become more and more powerful and destructive, until this ultimate show of power ended the Second World War. However, wars in Vietnam, former Yugoslavia, Afghanistan and Iraq have shown that brute power is not sufficient - guerrilla warfare can incapacitate even the best of forces. Strategy and persistence can outlast raw strength.

The pentagon's awesomely named CyberCom will be a major player in the wars of the future: wars which take place largely through digital means, whether it entails directly attacking opponent's weaponry or disrupting larger systems such as their electrical grid or civilian communications infrastructure.

Small skirmishes have already been fought. The ineffectiveness of threats and sanctions to deter Iran's nuclear ambitions has been a stain on the reputation of advanced militaries to curb international threats. However, the Stux-net virus, developed by the Israeli military and released in December 2010, was able to push back the Iranian military program by an estimated

two years. Essentially, all computers used or even associated with the development were attacked and debilitated by the virus, meaning controls and designs for nuclear facilities must be re-started from scratch.

Sometimes, the infrastructure we all trust turns out to be rather vulnerable. Though not discovered until November, China Telecom was able to re-direct up to 15% of the world's total internet traffic through its own servers. BGP routing is mostly based on the honour system-trusting that networks lay claim to only those networks over which they have authentic ownership. Large companies such as China Telecom, with its Autonomous System number 4134 are able to lay spurious claims to other networks, and, if left unchecked, these claims can propagate, effectively giving the organization some control over the information sent through their network. It is not implausible to see how this tool could be used to intercept, disrupt and alter private information from other countries and organizations.

The recent feud between Wikileaks and various authorities is another example of an online battlefield. While the Anonymous Network's DDoS attacks were not quite powerful enough to seriously destabilize the intended targets, they certainly caused a headache for corporations such as Amazon, PayPal, Visa and Mastercard. Similar

to the arms race of the Cold War, countries, large corporations, or even powerful informal networks such as the Anonymous group could be capable of making a sizable impact on one another, and engage in an inexorably proliferating struggle to build more destructive offenses and more impenetrable defenses.

Finally, hacking will continue to play an even larger role in real-world affairs. The United States and China,

interconnectedness of different systems leave sub-systems exposed to attack.

With an increasing number of our interactions, from communications, to financial transactions to automated control systems becoming a part of the digital realm, it follows that the next generation's battlefield, with its armies currently undergoing covert training by various governments around the world, will take place online.



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Learn more at www.cmc.ca

Alternative News Sources

Iron Warrior Recommends



ALEX HOGEVEEN RUTTER
3B ELECTRICAL

Disclaimer: My three most-read sources are the Economist, BBC and IEEE Spectrum. I probably read about a dozen other sources on a semi-regular basis, but the following three are especially important to me as they share perspectives not commonly available from mainstream Western Media.

Al Jazeera News

Al Jazeera is often the first source to report on events in the Middle East, and yet, when the dust settles, they often are the most cogent and accurate. I frequently try to find additional sources to corroborate facts cited in articles, and I've found Al-Jazeera has a much better record than most of the American channels, which tend to be subject to fairly substantive groupthink. They are much more adept at uncovering 'on-the-ground' perspectives and divergent viewpoints. Unlike some news sources, they are particularly adept at differentiating news from

opinion, with clear disclaimers for opinion pieces. Pure news articles are generally much more cautious and less likely to jump to conclusions. There is also a good mix of local issues, with the global context taken into consideration.

The best aspect of reading Al Jazeera is their perspective on "Western" news, such as events in the United States and Western Europe. Brought up in North American culture, it can be difficult for me to approach complex situations from a fresh perspective, which is often required for particularly intractable problems such as the current financial crisis. Unencumbered by environmental bias, and unfettered by large corporate interests, Al Jazeera can often offer an impartial and insightful take on contemporary issues in Western Liberal Democracies.

Alternatives Journal

Published since 1971 and with headquarters in Waterloo, this magazine is the perfect foil to my perennial favourite, the Economist. While the Economist caters to my need for numbers, charts and quantitative analysis, Alternatives

specializes in issues which transcend these modes of analysis, such as complexity, resilience and systems thinking. Alternatives informs readers about environmental concerns often ignored in mainstream media and presents an alternative range of solutions to the issues of the day. Each issue's special focus allows Alternatives to accomplish a level of depth not typically available in periodicals.

While it is an environmental magazine at its core, I've found that many of the articles are applicable to solving social, technical and geopolitical problems, especially as the different realms of problem-solving become more integrated. Alternatives Journal excel in highlighting the cross-disciplinary nature of modern problem resolution and encourages its readers, including engineers, to broaden their scope to problem resolution.

Discovery News

To be perfectly honest, Discovery News, is a poor "news" source, often

publishing blue sky ideas and half-baked inventions. However, it serves an excellent niche role in expanding the horizon of what we think is possible. It is among the first to present new advances in science and technology, and offers it to a non-technical audience. However, Discovery often provides links and resources to those who are more technically inclined and seek deeper understanding.

Discovery offers a good mix of information and analysis, and it really excels at providing wacky, non-traditional solutions to problems, encouraging readers to expand their scope. Again, the solutions and problems are often cross-disciplinary in nature and challenge readers to connect prior

knowledge to future developments. It is a great way to think about where the world has come from and where it is going, rather than solely where it is at the moment.

PS. Clearly the IW is my favourite publication, though issues are far too frequent to satiate my lust for information.



45-Million Year Old Beer



JON MARTIN
3A CIVIL

Mixing cutting-edge science, a little bit of Jurassic Park technology, and the love of alcohol has led to an amazing new type of beer. Raul Cano, a Biology professor at California Polytechnic State University, has successfully brewed a beer using 45 Million year old yeast discovered in Myanmar in the 1990s.

The yeast microorganisms were preserved in fossilized amber and through experiments with several collaborators, Cano was able to successfully extract the preserved yeast and cultivate it. This discovery shows that microorganisms are able to survive for extremely long lengths of time without air or nutrients. Similar technology was utilized in the movie Jurassic park, where fossilized mosquitoes were used as a source of dinosaur blood and therefore DNA. Of course, this discovery actually utilizes the preserved microorganisms themselves, still alive after millions of years.

The prehistoric yeast has been cultivated in northern California, filling an entire warehouse owned by the Fossil Fuels Brewing Co. - the company founded by Cano and Scott Bonzell. The company now produces beer primarily for northern California, focusing on a wheat beer. The

brewery also produces a pale ale and are working on two more: an amber ale and an Oktoberfest.

The finished beer has been described as having a taste with lots of spice, particularly cloves, with threads of ginger and pineapple. The beer also exhibits a highly desired clear colour, rather than a cloudy appearance. This is due to the unique genetic makeup of the yeast and the particular way it breaks down sugars.

The beer is sold at Gennaro's Grill and Garden, located in San Luis Obispo, California. Cano intends to expand the company, increasing production, marketing and promotion through investor support.



Barney having a few too many...

Do It Yourself Healthcare



ERIN MATHESON
3A CHEMICAL

When told in 2000 that he was diagnosed with Marfan syndrome, a condition that affects cardiac connective tissue and can cause the aorta to rupture, British engineer Tal Goleworthy was prepared for a risky surgical installation of a mechanical heart valve and prescription blood thinner regimen. The procedure he would undergo, called the Bentall surgery would require a total heart and lung bypass and would replace the aorta with a composite graft replacement. There is a high risk of blood clots caused by the graft so after being sliced and diced the patient is put on a high-intensity blood thinner. Side effects from these drugs range from stomach aches to nausea to headaches and a host of problems in between, not to mention having a reduced blood clotting rate can be a real pain if you get a nasty cut.

Unfortunately, this has been the commonly used treatment for Marfan since it's invention in 1968, until now. The risky surgery and host of side effects simply wouldn't cut it for Goleworthy, so what did he do? He designed a

new heart valve that would not require him to be on blood thinners, and saved his own life. Utilising modern imaging techniques such as MRI and a host of modeling techniques, Goleworthy was able to create a new implant constructed of polyethylene terephthalate, a standard medical plastic that only weighs 5 grams. Constructing the implant is very inexpensive, and it can be stitched directly into place by a surgeon. The hardest part of this two year process? Attaining accurate measurements. The constant movement of the heart and surrounding organs made attaining reliable measurements from multiple perspectives very difficult. Once an appropriate vantage point for imaging was found though, the design and implementation was ironically the easy part of his work.

Goleworthy was the first patient to receive this implant and was soon followed by 23 others, with many more on waiting lists for the new procedure. It's been reported that all of these patients are doing well and are blood thinner free. Goleworthy says it's not just a victory for Marfan sufferers, but sends a message to the medical community as well. "They are all medics and biologists, and they need process engineers," he explains.

"They are all medics and biologists, and they need process engineers," he explains."

@iWarrior ReTweets

Alexandra Collins, 3A Management

Send in your Engineering related
Twittering to:
iwarrior@gmail.uwaterloo.ca

"Congrats to our Mechatronics students! Innovation award winners at Queen's Entrepreneurs' Competition." - WaterlooEng

"Your EngSoc Prez is in a dumpster in the SLC! Pay to get him out and keep him in. :)" - MegBauman

"We got pizza delivered to the bin." - engsocBprez

"Dear #CnD, I'm so happy you're back, let's never fight again." - purplecake

"I just got the last pancake from the E2 foyer. It was delicious. #uWaterloo" - gamehead200

"Windsor stole the mini-tool already. This is a preemptive #notmyfault" - _kling

Review Based on a Trailer

February Fright Double Bill: The Roommate and Gnomeo and Juliet



JON RADICE
4B CHEMICAL

I don't know the reasoning behind this, but outside of Halloween the busiest month for horror movies always ends up being February. It must be all that Valentine love, Family Day and snuggling up to a warm fireplace that brings out the murderous psychopath in all of us. This month has its large share of horror flicks, or at least crappy barely-horrors hiding under the guise of psychological thrillers. Surprises all around, outside of that Justin Bieber biopic coming out on the 11th, there isn't a frightening premise among them. But that doesn't mean they can't be fun right?

The first horror in this movie mess of a month is *The Roommate*, and believe me this movie hits close to home. Being a single, white, good-looking female embarking to college, my greatest horror is rooming with an equally single, white, good-looking female that happens to be a massive stalker. I could go more into the plot, but that would only mean I'd be rewording the previous sentence over and over. It's exactly what you'd expect, Sara (the normal) finds a boy that she likes. Rebecca (the crazy) terrorizes the boyfriend. Sara (the normal) makes some friends outside of Rebecca (the crazy), and she (the crazy, not Sara) goes bezerk and tries to murder people. Sara (the normal) confronts Rebecca's (the crazy's) mother and surprise, Crazy ain't taking her crazy pills. You're probably wondering why I keep repeating who's crazy and who's normal, and simply it's because I couldn't keep it straight for the entire trailer, Sara and Rebecca are so similar and bad act-y that its useless to

keep track of petty details like who's the murderous one.

I know one of them is crazy, but at this point I can't be bothered to remember.

This movie does answer the age-old question that's been bugging philosophers for centuries, "What happened to Billy Zane ever since he was mentioned as an

movie? Then how's this for a premise? It's a 3D computer animated kids movie, and it is not made by Pixar. No, wait, it's not even done by Dreamworks. It's made by Disney, who's only good piece of original work was *Princess and the Frog*, the only movie they tried that wasn't in 3D. And it's not about toys that come to life

layered on top of short jokes and drizzled with groan-inducing gnomomenclature. But don't worry, this movie promises to be an adventure like *gnome other!*

I feel dirty.

But the movie will make money, and chances are if you have little cousins you'll end up watching it, and it will probably have a few enjoyable parts. It does boast some big names for voices - Patrick Stewart as Bill Shakespeare (Brilliant!), Hulk Hogan as Terrafirmenator (Hoo-yeah), Ozzy Osbourne, Dolly Parton and Jason Statham show up too. We even get some nice original songs played by Elton John, who also gets his own gnome avatar.

I mean, I get it. But did they really have to make Elton John the Purple and Pink Gnome? I also get that this picture will be in black and white and it will lose all effect as of printing.

The sheer number of big names in this movie makes me wonder how many dump trucks full of money Disney had to send out in order to get all these people to do voice overs. I, personally don't get the appeal of having big names in animation roles. Sure spending the five minutes wondering where you've heard that voice before can be fun, but once you're done guessing, all the mystery is gone and the movie is left as a hollow shell variety hour doomed to be thrown on the animates garbage pile along with *Shark Tales*, *Bolt*, *Doogal*, and all those other movies that people have stopped giving a damn about. *Gnomeo and Juliet* comes out on the 11th, and since it would be entirely selfish to wish for two massive snowstorms two weekends in a row, I'm just going to ask you kindly to skip this. Go re-watch *Toy Story 2* or *Ratatouille*; you haven't watched them recently and they deserve to be watched much more than *Gnomeo* or that shitty horror movie from earlier.



Did they really have to make Elton John the Purple and Pink Gnome? I also get that this picture is in black and white and will lose all effect as of printing.

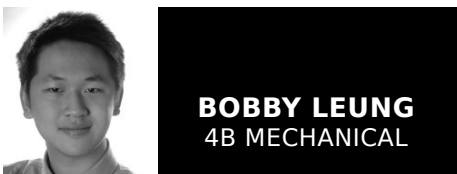
off-joke in *Zoolander*?" Well, question no more, this movie has got all the Zane anyone needs for the next 10 year gap between this and his next role. Outside of the Zane-factor the movie is full of no-names that (hopefully) will go nowhere with their acting careers. The premise is garbage and utterly not scary in the slightest. The girls are decent eye candy, but that shouldn't be reason alone to shell out money to see a movie in this day and age. This movie comes out February 4th, and I'm begging for a massive snowstorm that weekend just to make sure no one will go see it when it comes out.

Do you want to talk about a really scary

but rather (and this is a long stretch of the imagination, I know) garden gnomes coming to life. Oh and it's based on Shakespeare? Now that's a truly scary premise for a movie.

See, you got these two sides, one side is a group of blue gnomes, and the other is a bunch of red ones. They live right next to each other, and they hate each other. But wait, not all of them hate each other! Two star-crossed lovers fall in love and must prepare for an adventure like *gnome other!* And the terrible gnome-based puns that must be in this film! Knowing how shitty Disney is at attempting humour, I'm sure we'll have our share of gnomantic puns

The Five-Tool Player: Draft Day Do's and Don'ts



BOBBY LEUNG
4B MECHANICAL

Every year, some fantasy pundit will tell you some player is going to break out and be a lock to finish as a top-10 player and someone else will pitch like an ace but can be drafted like an SP3. How often are these experts right? Fantasy baseball is a multidimensional teeter-totter; the up's and down's are perpetual and endless. The only sure thing is that there are no sure things...

...Kind of. The one reality of fantasy baseball has nothing to do with any individual player, but your draft. The singular truth in our made-up game is this: you cannot win your league with your draft, but you can certainly lose your league with it. Today, we will cover draft day do's and don'ts to ensure you are prepared for the most important part of fantasy baseball.

DO tier your players. It is so important to tier your players before entering your draft. To make a fantasy cheat sheet, start by grouping all the players in the player pool by position and sort each list from best to worst. Afterwards, you divide your positional player list into tiers, grouping similar values together. For example, with first basemen, I feel that the top ten guys are Pujols, Cabrera, Votto, A-Gon, Youk, Tex, Howard, Fielder, Dunn, and Morales. I will say that Tier 1 consists of Pujols and Miggy, Tier 2 has Votto, A-Gon, Youk, and Tex, and Tier 3 is Howard, Fielder, Dunn,

and Morales. You may target a 1B from a certain tier, but if someone gets you want, like Adrian Gonzalez, is drafted, you know there are three other players who can get you similar stats. A tiered player list reduces stress during the draft. Remember, we are drafting numbers, not names. This list is a great visual tool to identify top player values as you progress through the draft, and becomes invaluable especially during those late candle-lit hours.

DO NOT draft drunk. Some, if not most, fantasy players perceive the draft as a social activity. They might partake in a brew or two and crack some jokes. But not you. You are a winner. You need to focus. Folks do not appreciate the data tracking that goes on in a draft. You must sort through the available players to put on your queue, keep track of your team's needs, your opponents' needs, and your list of super-sleepers. Distractions lead to overlooked studs and breakout sleepers on another manager's team. Let the fifth or sixth place team manager fool around. Your beer will taste colder and sweeter after you raise that imaginary first place trophy.

DO highlight your sleepers. This will be a cinch if you draft with a tiered player list. After the first four or five rounds, every team is going to look the same because the top players will be picked up. The later rounds separate the contenders from the pretenders. If you feel like someone is going later than he should be, make note of it on your cheat sheet. Many amateur fantasy players in your league will look at Wandy Rodriguez and Max Scherzer and remember how awful they were to start last sea-

son. Ricky Nolasco has terrible stats, but peripherals and advanced metrics suggest he is much better than his numbers suggest. These guys will likely be passed over until later in the draft, much later than they deserve. If you did your homework, you will get these SP2s for SP3 or even SP4 prices. Imagine Way-Rod, Scherzer, and Nolasco with a stud SP1 like Josh Johnson, who is also going cheaply in drafts, and you have yourself a dominant pitching foundation.

DO NOT listen to the draft chat. Fantasy sabotage is an interesting tool that is not mentioned enough. People may leave comments in the chat box hyping up or talking down some players. Sometimes it is to brighten up the draft, but other times, these comments are intentional to distract league members from these players' true values. Don't listen when someone tells the room that he saw Kendry Morales limping to the bench after a spring training at-bat. It is highway thievery if you can get him in the sixth or seventh round. You've done your research. Trust your gut and let your hard work pay you back.

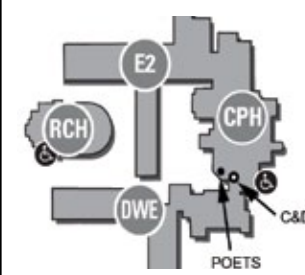
DO remember the point

of fantasy baseball. Remember, at the end of the day, fantasy baseball, and fantasy sports in general, are supposed to be fun. I started playing in 2006, and I can't emphasize enough how much fantasy baseball has gotten me more involved in the sport as a whole. Take each draft as a learning experience for your next one. Whether you think you did great or you could have done better, make sure you have a great time playing our great game.

MORE THAN JUST COFFEE & DONUTS

The EngSoc C&D has more than just Coffee and Donuts. Stop by for a variety of freshly prepared sandwiches, baked goods, soups, and more! It is run by students for students, so the prices can't be beat!

There are a variety of specialty coffees available - including fair trade. Bring your own mug to help the environment too!



HOURS OF OPERATION
MONDAY-THURSDAY 7:30AM - 7:00 PM
FRIDAY 7:30 AM - 5:00 PM

ENGINEERING SOCIETY



What To Know About IRS



MICHAEL SELISKE
2T COMPUTER

IRS is an acronym that you have been hearing people talk about ever since your very first frosh week, but do you even know what it means? The Iron Ring Stag has been a tradition at the University of Waterloo for a very long time and is the huge party that is thrown by your graduation committee,

to celebrate getting your iron ring. Even though IRS is one event, the majority of students group the pre-ceremony party, the Iron Ring Ceremony and the Iron Ring Stag into one jam packed celebration weekend.

When you mix celebration and college students you typically end up with alcohol as well. IRS celebrations are usually conducted by each class and start early in the morning. The GradComm assistants are usually on hand to run the party and cook pancakes for the participants who are normally dressed in ridiculous costumes. Once the classes are well lubricated, they head to campus and visit profs who have influenced them over the years.

This would be great and appropri-

ate if all of the participants conducted themselves in a proper manner, however, over partying causes people to act inappropriately. Each year there is one or two things which happen that cause the IRS celebration to be questioned by administration, jeopardizing the fun that future years can have.

In the past few years such things as stealing dinosaur bones, breaking windows and disrupting classes from other

“The Iron Ring Ceremony and the Iron Ring Stag [are in] one jam packed celebration weekend.”

faculties put the IRS celebration at risk. Many of the attitudes shared by the upper years is, "I'm never coming back here so I don't care". Please be aware that you still need to graduate, and any altercations with the authorities can cause problems with graduation or even licensing opportunities with the PEO. The faculty has done a few things to try and mitigate the partying that happens, such as moving the IRC to Saturday from Friday and mentioning that these types of celebrations would not be tolerated.

The IRS weekend which is a tradition at many schools across Canada, has been put in jeopardy at Waterloo, due to the stupid actions of a few people. Therefore as someone who will have his IRS in two years, I urge you to have a good time and celebrate your graduation, but please be smart and don't do anything that might jeopardize my future IRS weekend.

prof Quotes

“Once you are stuck in a job, you’ll quickly realize which courses in all your years of undergrad you should have stayed awake in.” - Nairn, ECE 444

“You’re engineers-you’re supposed to be exciting! It’s doctors that are boring, because no one wants an overexcited doctor.” - Jervis, CHE 322

“You can hire some comp sci monkey who will sit down with a bunch of jolt cola and chocolate bars and he’ll write your code for you. That’s why you don’t wanna be in comp sci, too much jolt cola.” - Jervis, CHE 322

“By the end of it, Newton was a raving lunatic who wet himself. But he’s a really cool guy who you owe so much to!” - Jervis, CHE 322

“It is physically impossible for you to get less than a B in this course. Unless you’ve had a lobotomy.” - Orend, PHIL 226

“XXX is what you write on a card to your friends.” - Penlidis, CHE 325

“Bang, bang, bang, all day long.” - Weckman, ME 340

“Cmin (Professor laughs).” - Guest Lecturer, CIVE 497

“I don’t drink before teaching; this isn’t an english course!” - Jervis, 322

“When I did my undergraduate at U of T, there was this high school down the street called Ryerson.” - Nairn, ECE 444

“If you are me, you will find yourself drunk coming up to answers to problems.” - Vale ECE290

“Google ‘slickwater.’ It’s not going to be some weird sex thing.” - Dusseault, EARTH 437

“What’s ninety degrees between friends?” - Dusault, EARTH 437

“Sometimes I speak and my brain does something else.” - Miller, ECE 380

“Play nicely. Be fair. And don’t be a dick.” - Vale, ECE 290

“Whistle blowing is tateltailing when you are tateltailing about something really really important.” Vale-ECE290

“And then you guys will box or underline this answer twice and be proud, but it will raise my blood pressure when I am marking your exams.” - Sedra, ECE332

Send in your profQuotes to:
iwarrior@gmail.com
iwarrior@engmail.uwaterloo.ca

Future of Gaming: Prices and Portables



JON MARTIN
OBI JON1138

Well, this has been an eventful two weeks since my last article, with the official pricing of one handheld, and the official announcement of another. Not a lot of new stuff on the Microsoft front, so this article will be a little slanted towards Nintendo and Sony. First off, I want to clarify a few things about the purpose of this column, and my own gaming preferences, in response to some comments and questions I have received.

The purpose of this column is to look at the current and future prospects in the gaming world, this focuses mostly on the systems and companies themselves, rather than the games. Obviously there are so many different genres and styles of games out there that I could never hope to interest everyone, and would probably alienate a large number – so no game reviews. This also links into my second point, relating to multiplayer versus single player gaming. I have received comments that I am against multiplayer, but that’s not true at all, I just enjoy single player games more. The vast majority of games that I play offer co-op missions, which are a lot of fun, but I have never gotten into online competitive games like COD and Halo. I respect the games, and acknowledge that there have been some great games made for multiplayer only, they just aren’t my style – hence the focus of this column.

On to the news, starting with Nintendo, who has finally announced pricing and the launch window for the Nintendo 3DS system. The new entry into Nintendo’s portable gaming empire will be retailing for \$249, launching on March 27. Nintendo has also announced a launch window, of approximately four weeks over with their launch games will debut. One other thing

that will make a lot of people really happy, the Nintendo 3DS will feature a single friend code – no more individual friend codes for every single game.

A new DS game has made my list of stupid games & peripherals, Battle & Get: Pokemon Typing DS. This instructional game will teach kids how to type properly by spelling out Pokemon names, and normal words I hope. Many people thought the game would function through an on-screen keyboard, but the actual plan is kind of weird. The game will ship with a full Bluetooth keyboard, communicating with the system through the Bluetooth enabled cartridge. I’m not sure if Pokemon is quite the best theme for a typing instruc-



tion game, or that the DS is the right platform, but we’ll see what the future holds.

Now, on to Sony, who has finally announced the PSP NGP. The Next Generation Portable as it is called, is basically the PSP2 we have all been waiting for – I choose to ignore the multiple revisions to the PSP and the PSP Go, they never added anything drastic, except the opportunity for Sony to increase the price of the portable every time. The NGP looks very similar to the original PSP, though with a few more curves like the PSP Go. The biggest change that I am happy about is the inclusion of dual analog sticks – Finally!!! The PSP has

long been haunted by the limited controls available, while developers attempt to use those controls for console style games. Console games, like first person shooters (FPS) for instance, utilize dual analog stick constantly, enabling you to move and aim at the same time. On the PSP, though many games ‘fixed’ this problem by using the single analog stick for both aiming and moving, requiring an additional button to be pressed to enter aiming mode. Unfortunately this leaves you completely stationary while you are aiming, while other people are shooting at you!

Now that Sony has fixed the issue of not having dual analog sticks, the PSP NGP now has the full

controls of a full console controller, enabling developers to finally realize the dream of a console game that is truly portable. The NGP will also feature a 5 inch Organic LED display (that should help a lot with batter power) with a 960 by 544 pixel resolution – 4 times that of the PSP. The front screen will also feature multi-touch capabilities as will the rear touch-pad. Yes, a rear touch-pad, I honestly don’t have many ideas about the functionality of this new feature, though an interesting example has already been revealed. One game, focused on controlling the path of a ball across a virtual obstacle course utilizes the rear touch pad

versus the more conventional motion sensor, by touching the back of the NGP you literally push out the surface of the world, allowing the ball to roll down the newly formed hill. That has some interesting possibilities for new gameplay. Of course the system will also include the now obligatory front and rear cameras, as well as the same six-axis system as the Move, GPS, and Wi-Fi. While all models will include Wi-Fi, 3G appears to be an optional upgrade for advanced models. Another interesting change is the use of flash memory card based games instead of the dying UMD. UMD, or Universal Media Disk, has been used for both games and movies on the PSP. Since the disk system was only ever used on PSP I’m not sure how the ‘Universal’ part fits in. The new flash based games will include extra space for saved games, an interesting addition.

No release date or pricing has been announced, although Gamestop was quick to set up a place-holder site, taking pre-orders for \$999. This page has since been pulled, no doubt because Sony didn’t want that price to become a rumour. I for one am hoping for a competitive price for the NGP, none of this stupid ‘It’s an amazing system that people will learn is worth the money’, if you don’t set the system at a price where people are actually going to buy it – then you won’t make any money. Sony has said they want the NGP to be both profitable and affordable – whatever that means – and that it won’t be \$500. Whether that means it will be more or less than \$500 is still unclear, but I’m sure everyone is in agreement about which side they want it to be on.

That is the news for this issue, keep checking in for new developments and opinions on the newest tech from the big three. Sorry for the lack of Microsoft content, they are still basking in the light from selling 8 million Kinect units in only 2 months. Until next issue, good luck with midterms and assignments, vote in the election, and of course, keep on Gaming.

The Brew Man Group - Mort Subite Kriek Lambic



DAN ARMSTRONG
4B MECHANICAL
NEIL PARTRIDGE
4B CHEMICAL

Dan: In today's Brew Man Group, we're heading back to the land that rules them all. It's half Dutch, half French, and full of deliciousness. Yes, Belgium is home to some of the world's most universally loved beers. Seriously, who out there doesn't love a cold Hoegaarden on a hot summer day? That sh*t is crazy refreshing. However, Belgium is also home to some of the most distinctive, potentially offensive beers in the world. The pure unblended lambic, for example, is a style so disagreeable that most are loaded with sugar and fruit, making them tolerable enough for people like Neil who can't deal with their complex, controversial flavours. Aside from its pure form, there's raspberry lambic, peach lambic, apple lambic, blackcurrant lambic, and of course the classic 'kriek': cherry lambic.

Neil: Dan is too quick to judge me, as it's not the style I discriminate against, but simply the flavours presented in the final beer (BTW, he can be a real tool!). If the lambic is done well, I will happily consume it! Nonetheless, the lambic style is an interesting one to explore. Lambics in themselves are simply a beer inoculated with wild yeasts including, but not limited to: *Saccharomyces*, *Lactobacillus*, *Pediococcus*, *Brettanomyces*. Therefore historically, lambic beer is the first "style" and was produced several thousand years ago via spontaneous fermentation of unmalted grains. If we skip past many undocumented years to 14th and 15th century Flanders and Brussels (countryside area in Belgium), we finally find evidence of brewing habits similar to those seen today in lambic production. Farmhouse breweries would brew locally for trade using wooden fermenters or barrels that could house several thousand species of

wild yeast. Consequently, each beer was truly unique to the brewer. Eventually in the small village of Lembeek, roughly 43 brewers merged together to form the first guild, which created the first official "regional brew". Until recently, it was not unheard of for a Belgian resident to drink a single beer, simply because lambics did not travel well.

Whew, that's a nice piece of historical mash-up, but how do lambics taste? Aside from traditional beer traits (colour and body), the lambic should show hints of barnyard from the wild yeast strains (earthy, hay, horsey etc.), some moderate acidity on account of souring bacteria, and perhaps some oak or tannic astringency. In fruit lambics as well as gueuze (several lambics of different ages blended together), we can add some fruity traits and a high degree of carbonation on top of the aforementioned qualities. One of the few breweries to produce gueuze in modern times for export is the one we're discussing today.

Dan: The Mort Subite brewery, formerly the Keersmaecker brewery (and formerly something else before that), can have its roots traced back to Kobbegem in 1604... at least according to a Google translation of a Flemish Wikipedia page. This old small farm brewery just North-West of Brussels came under ownership by the Keersmaecker family in the 19th century and began to specialize in spontaneous fermentation

beers. The name Mort Subite means 'sudden death' in French, and refers to the final roll in a dice game called 4-2-1. A particular cafe owner in Brussels noticed how popular the game had become with 1920s bankers, and thus re-named his establishment À la Mort Subite and used the term to refer to the gueuze being served. Eventually the Mort Subite line of beers was purchased by the Alken-Maes group of Belgian breweries, which in turn is now owned by Heineken.

Despite ownership by the world's third largest brewer, Mort Subite beers are still made in the small town of Kobbegem. This is primarily because the elderly brewery is nestled in the heart of the Senne valley, known for air properties that are particularly conducive to lambic beer production, a process I learned about in detail with a visit to Brussels' Cantillon Brewery (renowned by beer geeks as one of the best lambic breweries). Unfortunately, I was told that the region's airborne yeasts have been in decline in recent decades, so the few traditional lambic breweries remaining need to be careful; if the buildings are destroyed, the dozens of yeast strains living in the ceilings and floorboards will perish, meaning the same

beer could never be brewed again.

Neil: Upon pouring into our coveted chalice (I hope that's the plural form of chalice!), it's immediately evident that this beer looks like a jewel. It's divinely clear from the lengthy aging process, and tinged ruby-red from cherry tan-

nins. Very different I think, as I decipher a whiff of cherries and farmhouse. However upon my first taste, I can tell that this style has been tampered with. Indeed, I am not as experienced in lambics as Dan, but I can detect when a beer is overly sweet (possibly artificially). It quite literally tasted like candy-sugar, which is definitely a minus in my view. It's sad to think that the Mort Subite brewery need to appeal to the masses, and consequently cover up the traits that make it unique. But nonetheless, I would still recommend to give it a go just to get that hint of barnyard that we can't readily find in Canada... And to be fair, I did finish the bottle with no major issues. [3/5]

Dan: This beer is rather gorgeous. A crystal clear orange-red body is topped with some off-pink head that leaves all sorts of lacing down the side of my glass. Not only that, but the aroma is fantastic; like a fresh cherry pie cooling on the window of a horse stable. The taste, however, is not quite what I hoped for. Forgive the simile, but it's like twenty (maraschino) cherries popping in my mouth all at once. There's a slightly sour and earthy undertone to the beer, and some oak in the finish from the aging barrels, but the intense sweetness is detracting from the complexity.

Mort Subite is not one of the world's well-respected lambic producers, mainly due to the fact that they sweeten each of their beers for mass appeal. I suppose this is fitting for a Heineken-owned brewery, but the result is a beer lacking in the traditional funky lambic character I fell in love with in Belgium. On a hot summer afternoon, this would be a great distinctive fruit drink, but it needs to cut out the sugar to become a great kriek. Next time someone asks me to recommend a good chick beer, this will be it, but for me, it's no Cantillon. [3/5]

Recommended for consumption if you enjoy: Fruli, Cherry Kool-Aid
Props to hops // Dan and Neil



Ilya Panchenko

A bottle of Mort Subite Kriek Lambic next to its poured contents in a chalice in front of a bag of wheat malt; an ingredient in lambic beer.

They're an Engineer Too!

Ming Tsai



ERIN MATHESON
3A CHEMICAL

If you're like me and have an awkward obsessive relationship with the Food Network, the name Ming Tsai will most likely ring a few bells. As a contestant on *The Next Iron Chef* and host of *East Meets West*, *Ming's Quest* and *Simply Ming* on the Food Network, *Fine Living Network* and *American Public Television* respectively he has both won an Emmy and become a familiar face to food aficionados everywhere. Little do most people know, Tsai is also an engineer.

Tsai transferred to Phillips Academy and later to Yale University where he graduated with a degree in Mechanical Engineering. While at Yale Tsai was also the second ranked player on their Squash team. He later received his masters degree in hotel administration and hospitality marketing from Cornell. While attending culinary school at le Cordon Bleu in France afterwards, he also played in the European professional squash league just to keep busy. Tsai also speaks four languages; English, French, Spanish and Mandarin Chinese.

Tsai and his wife own and operate his restaurant *Blue Ginger* in Wellesley Massachusetts. He has also written three cookbooks; *Blue Ginger*, *Simply Ming* and

Ming's Master Recipes. He also has a host of television guest appearances under his belt, and was also once voted #16 on *People Magazine's* most beautiful people list.

Innovation is truly at the heart of Tsai's cooking – it's his fusion of eastern and western styles of cooking that has made him famous. He combines classics passed down through his Chinese-rooted family with a North-American twist that are both delicious but ridiculously simple to make at home. Tomato and mozzarella basil tempura with three-vinegar aioli – need I say more? Just remember when you're cooking up your latest box of Kraft Dinner, there's a plethora of engineer-worthy foods you can easily make yourself that will taste phenomenal and be super simple. After all, it was an engineer that wrote the recipe!

Solution To Last Issue's Iron Sudoku								
1	3	2	4	5	8	7	9	6
4	8	6	7	9	1	5	2	3
7	5	9	3	2	6	1	4	8
5	1	4	8	6	3	2	7	9
6	2	7	5	4	9	8	3	1
3	9	8	1	7	2	4	6	5
9	7	5	6	1	4	3	8	2
2	4	3	9	8	5	6	1	7
8	6	1	2	3	7	9	5	4

Finding Solitude

Tips on How to be Truly Lonely



HOBYUNG LEE
3A MANAGEMENT

I have found that throughout life, there are many tips, how-to guides, and entire novels and films devoted to the activity of trying to pick people up. Furthermore, countless number of guides exist generally aimed at the non-fair sex, on how to get the girl of your dreams and live happily ever after.

Let's be real here folks: deep down inside, we don't secretly long for a companion, a partner to share our hopes and dreams, or to have a shoulder to cry on and to lend an ear when needed.

What we actually want is complete, and utter loneliness.

How do I go about this you ask? How come there aren't books, TV and radio shows to address this growing need to lead a lonesome, desolate life, one chased by OH so many?

Thankfully, there has been recent news giving the gloomy a ray of darkness to hold onto at night when we don't want to hold onto anyone else.

There was Josh Le who, 'as an experiment', didn't wash his jeans for 15 months. And the Italian man who decided to bring his mother along for his honeymoon. What these two fine

gentleman were doing were leading the pack, blazing trails and being pioneers for the rest of us on how best to avoid any relationship of any sort or get rid of your partner and keep it that way. Honestly, what better way to keep the ladies away than bringing your mother with you on your dates?

But to help you folks on your way to an eternity of solitude, let me give you a helpful list of things you can say or do to keep people at bay

1. Tell people to read your blog.
2. Work on your novel / screenplay / autobiography at a Starbucks.
3. Wear anything made of hemp.
4. Poke, people on Facebook.
5. Tell people to follow you on twitter.
6. Submerge yourself in waves of Axe body spray instead of showering.
7. Wear a popped collar shirt... on top of a popped collar shirt.
8. Have a Myspace account.
9. Major in Mathematics.
10. Tell people how your Mac is better than PCs because 'it just works'.
11. Tell people your ideal dinner date would be a Whopper, but only on Whopper Wednesdays.
12. Tell people that your epitome of style is a trucker hat.
13. Only like bands that nobody has ever heard of.
14. Tell people you write for Imprint.

Tips on Running Technology



**KIRSTEN
HOEDLMOSER**
4B CHEMICAL

Everyone likes a new toy – I think it's safe to say that a lot of engineers love new toys. If you're a running engineer, well, things can just get out of hand with all the interesting tools you can use to help you meet your running and fitness goals. Whether you're running to get fit, training for your first race, or trying to beat your best time, there are tons of tech tools out there to help you keep on track, stay motivated, and reach your goals. The systems and tools described here will give you a quick primer on what's out there.

Timex watches: how much simpler can you get than a wrist watch? It's a tech-step above the truly minimal (which would be no gear at all): it helps you keep track of how long you've been running. That's... pretty much it. Timex watches can come with a lot of bells and whistles, though. Their most basic watches will keep track of time, how many laps you've done, etc, but their more loaded models feature tap screens and GPS. **Ideal for:** those just starting out, those who don't like to run with a lot of gear or tech, those on a tight budget. **Pros:** durable, affordable (for the basic models). **Cons:** limited to timers and stopwatches (again, for the basic models).

The Adidas miCoach: this relatively new tool from Adidas is becoming quite popular amongst runners who want more than time and pace displayed on their wrist. The miCoach can't replace a real coach or trainer, but it can still help you reach your fitness goals. It's an audio based training system that comes with a stride sensor, a heart rate monitor, an on-line workout manager, and tons of data

and charts to show your progress and help you plan your workouts. It works by plugging the pacer unit into the music player of your choice, which you connect to your earphones. You can use the miCoach Pacer in "free" mode or "coaching" mode. Free mode will save your data so that you can check it out later, and the coached mode will do just that – coach you. The coached version chimes in to guide you by telling you to pick up the pace, slow down, or give you your stats. You can download training plans for staying fit, training for a race (whether to finish or improve your time), and improving at soccer, football, tennis, or basketball. The miCoach Zone is also available, which is a wrist band that displays coloured lights that correspond to your heart rate and calories burned. Finally, there's a miCoach app you can download for your iPhone that uses GPS and real-time tracking to coach you. **Ideal for:** people who want more bells and whistles than a GPS or regular watch, and who work out with music. **Pros:** lots of features to take advantage of, moderately priced in comparison with GPS watches, can use for more activities than running. **Cons:** lots of components to deal with so not ideal for the minimalist runner, must use in conjunction with a music player if you want to use the coached mode, not as accurate as a Garmin or GPS system for tracking distance.

The Nike+: this system has been around for a while, and is very popular with runners who want some coaching and GPS features without the price tag of a GPS watch. It used to be that you could only use the Nike+ system if you ran in Nike shoes, but now that you can combine any shoe with the Nike+ system this tech is more accessible to runners. Nike has a few systems available, so you can choose the components that are best for your needs.

For example, if you don't run with music, you can use the Nike+ SportBand to track your pace, time, and distance. If you'd rather run with music, you can combine a Nike+ Sport Kit to your iPod nano and get live audio feedback while you're training. You can also combine your iPod touch or iPhone 3GS with the Nike+ sensor to get the same feedback. Nike+ is compatible with the Polar Wearlink+ Transmitter to track your heart rate. As with the miCoach, you can select the workout of your choice or follow a training plan made with Nike+ Coach. **Ideal for:** people who want to take advantage of the features offered by a GPS watch with the added bonus of coaching. **Pros:** less expensive than the miCoach, more social than the miCoach (forums and challenges are available to Nike+ users), GPS and pacing available, can still use the system if you don't run with music. **Cons:** only compatible with an iPod if you want audio coaching, distance and pace is less accurate than a GPS watch.

GPS watches: There are a few big names in the GPS watch market: Garmin, Polar, and most recently Timex, to name a few. Garmin's Forerunner series is a running favourite: their 305 and 405 watches track your pace and distance very accurately, can be used for multisport, and let you analyze your workout data using their Garmin Training Centre software. Other models are ideal for triathletes and other multisport athletes as they're waterproof and support more advanced workouts, such as the 310XT. Garmin GPS watches also link with TrainingPeaks.com, a training system for endurance athletes. Timex GPS-enabled watches are similar to Garmin's, but are slightly more expensive. Polar watches are also accurate and support multisport, and come with the added feature of measuring your aerobic fitness at rest and telling you your progress. They

can be thought of as a middle ground between a GPS watch and a miCoach or Nike+ system, and are similarly priced to Garmin's watches. **Ideal for:** those who want more than a watch, but don't want audio coaching to help them train. **Pros:** highly accurate, still allows you to analyze your running data and track your training. **Cons:** much more expensive than the miCoach and Nike+ systems, minimal coaching available.

RunKeeper: this App for the iPhone and Android systems allows you to connect with runners in your region, helping you share routes, search for races, and take FitnessClasses to help reach your goal. The coached running plans don't give you audio training, but do give you a training plan to follow on your phone. RunKeeper has an interesting feature called the Street Team, which is a collection of RunKeeper users in your area that you can use to help motivate you. Best of all, the app is free! **Ideal for:** people who run with their phone and want accurate pace and distance data, along with some social networking features for motivation. **Pros:** free, accurate, and has built-in social motivational tools. **Cons:** training plans are basic, must be willing to carry your phone with you on your run.

There's still the good-old-fashioned way if you're not into workout tech: finding a workout buddy or joining a running group. Check out the Running Room's group runs on Wednesdays and Saturdays, UW's running group, or Engineering's running group. The Engineering group meets on Tuesdays and Thursdays at 5:00 pm on the POETS patio – all are welcome!

And there you have it: the basics on a few of the more popular running tech tools on the market. If you want the extra training help, one of these just might be right for you. Good luck, and happy running!

Get Yourself Some Lines

Become more than a minor player



**CHAD
SEXINGTON**
4.5X MENGINEERING

The end of winter is drawing ever closer, and hunting season is about to open up across much of Ontario and the rest of Canada and U.S. Though some of you dislike the practices that come with the soon to open season, it is never too late to start learning the skills required and the tools of the trade. No matter who you are, from the most experienced veteran, to the newest newbie, there are always new skills to pick up. This is especially important for some of the graduating class, who will soon find themselves out in the world abroad fending for themselves once again. I'm talking about job hunting. Yes yes, anyone can track a deer or moose through the forest, it comes naturally to most, but hunting for jobs can be especially difficult for people who have never seen the outside of the University. Today though, I'm going to focus less on the interview skills and more specifically about how to actually find jobs.

Hunting for jobs on Jobmine is like hunting in a game preserve or zoo. The jobs are fluffed up, specialized, and there are very few of them with a lot of visitors trying to get in on the action. The real world job hunt is a lot more like being a character with no lines in Jurassic park (after all the power goes out and the raptors escape) where at every turn you wait for your turn to get devoured, and only the main characters will get to face off against the giant T-rex. The

point I'm trying to make, is that you can't just look for the big players when you're looking for jobs, and you can't wait for jobs to come to you. Sure, everyone wants to work at Gigahard or Orange or Wasazon*, but these companies make up only a small part of the potential home you will make for yourself in the future. So, where do you go? That's a pretty good question!

There are a number of skills you can use to find places to work, and I'm going to warn you, Googling 'places to work in X' is not among them. The first and foremost lesson, is that most people don't hunt alone. You must use your networks of family, friends, grandparents, co-workers, teachers and even people you meet on the bus to help you find jobs. It never hurts to ask 'hey, do you know anyone working in ___', because it works. Your parents know more people than you would guess. The next tip: knowing what you want. Figure out what you like and make sure you narrow your search to what you want. There's no point in looking at manufacturing jobs if you want to do R&D. It's a waste of effort. Next, expand your hunting ground. You tried using Jobmine. You tried Google. You even asked your parents. So now what? 90% of the private sector is private for a reason, and you can't find hide nor hair of them online. Well that's where print comes in. Yes, actual real paper with ink on it. Use the newspaper classifieds, companies you hear about in your favourite magazines, and investor listings to check out what companies there are hidden. Tech listings and city listings of local companies can also yield sweet results (heck, even a

phone book can hide a piece of gold). Any company trading on the stock market has an identifier, use it to find them. This may shock you, but not all of the world lives on the interwebs. Suit up and go to a job fair (these are also listed in newspapers), but don't plan to get hired on the spot. Use the opportunity to collect company information, and take down names of important contacts. Browse patent office websites and check for patents on things you find interesting. Find out who holds it, and see if they are worth taking a look at. Finally (and notice where this is in priority), sign up for some online job listing sites like tal-

entegg.ca or engineerjobs.com. These sites periodically update with important info, and can be a source for many small companies. They should not be your only source. Your primary search engine should be your own brain and motivation.

That's enough for now my Sexy Readers. It's tough to pack more than that into such a small space. Just remember, the jobs are out there, but simply believing won't bring them to you.

Until next time,
Stay Sexy

*names have been changed to protect the innocent.

Helix Lab Re-Opens After Renovations

Located on the 1st floor of RCH, Helix lab has finally undergone extensive renovations and computer upgrades making the lab much more bearable to work in.



The Iron Crossword

STUART LINLEY
2N NANOTECHNOLOGY

1	2	3	4	5		6	7	8	9		10	11	12	13
14						15					16			
17						18					19			
20							21			22				
			23			24		25						
26	27	28		29			30		31			32	33	34
35						36			37		38			
39			40	41					42					
43						44					45			
46					47		48			49		50		
			51			52		53			54			
55	56	57					58		59			60	61	62
63						64			65					
66						67				68				
69						70				71				

The Iron Sudoku

VICTOR CHE
3B NON-DEGREE

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

Across

- Across
- 1. Tore
 - 6. Student loan
 - 10. Blah
 - 14. Wear down
 - 15. Give stars
 - 16. Simplicity
 - 17. Princess saving plumber capable of folding into a plane?
 - 19. Para go with
 - 20. Somebody might
 - 21. Marks by pressure
 - 23. Million suffix
 - 25. Basic util.
 - 26. Association for Computing Machinery
 - 29. Actor Neeson
 - 31. Canine's coat
 - 35. Words with barrel roll
 - 36. Asia Pacific Orthopedic Association
 - 38. Storage house
 - 39. MIT grad with a PhD in crowbar use
 - 43. Craze
 - 44. Cigar or bachelor go with
 - 45. A followers
 - 46. African antelopes
 - 48. Weed fiber
 - 50. 'near' prepositions
 - 51. Uncles (Sp.)
 - 53. Lightly cooked
 - 55. End point
 - 59. Out of style
 - 63. Burn soother
 - 64. He's got monster balls
 - 66. Tartan wearers
 - 67. Pad ___ (noodle dish)
 - 68. Musical pace
 - 69. Sour
 - 70. Verdi opera
 - 71. Affirmatives

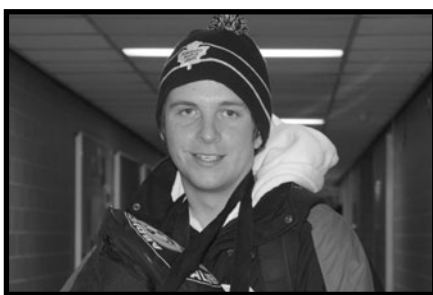
Down

- 1. Take back (abbr.)
- 2. Samus ____
- 3. Manage
- 4. Skin swelling
- 5. Go off track
- 6. Mouths, anatomically
- 7. Delhi dress
- 8. Once upon followers
- 9. The public
- 10. devote to
- 11. Parade spoiler
- 12. Helper (abbr.)
- 13. Pollenators
- 18. Innumerable
- 22. Actress Zellweger
- 24. The Raven poet
- 26. Facebook request
- 27. Polyp construction
- 28. ___ Carta
- 30. One of 12
- 32. Black or green and slithery
- 33. The time by which the solar year exceeds the lunar year
- 34. Loans
- 37. Following
- 40. Balm
- 41. They meet in the middle
- 42. Built again
- 47. Series of musical movements
- 49. Good lookin'
- 52. Like some rolls
- 54. Host
- 55. Diplomacy
- 56. First name in jazz
- 57. Expression of pride?
- 58. Creative valley?
- 60. Resistance units
- 61. Hoodwink
- 62. People with lots of feelings
- 65. Sportage maker

THE IRON INQUISITION

Caitlin Hillier, 3B Geological

"What would you like to see the next FEDS Exec do for UW?"



"A better, more thought-out use of our money"
Michael Seliske, 2T Computer



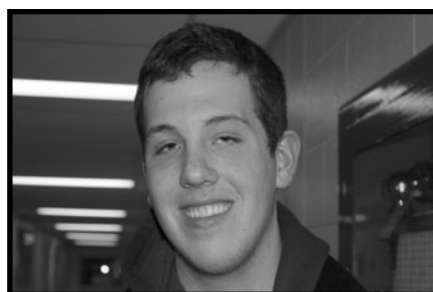
"Put hand lotion in the washrooms"
Alia Rahman, 3B Environmental



"A more user-friendly website"
Michael Soares, 3B Computer



"Legitimate vision for both their goals and the means to achieve them"
Bobby Leung, 4B Mechanical



"Do they even do anything?"
Matt McLean, 2A Mechanical



"Water fountains in E5"
Brayden McNeill