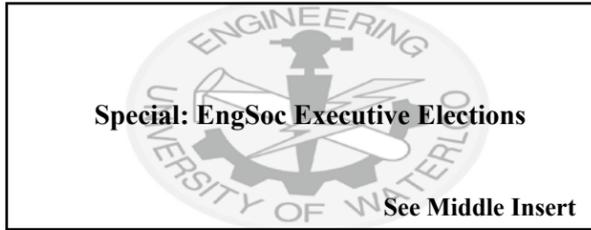


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Engineering & Commerce Unite At Queen's

ALISON LEE

1B NANOTECHNOLOGY

I'm not sure if I could have been any more excited about attending the Commerce and Engineering Environmental Conference (CEEC) at Queen's. The acronym contains two of my favourite words: engineering and environmental, and one that I should learn more about: commerce. While I'm sad that I was the only delegate from Waterloo amidst a sea of suited-up commerce students and purple leather jackets, I'm still glad to represent UW (and possibly spread WEEF propaganda in strategic locations).

CEEC, pronounced "seek", was held March 5th and 6th and is jointly organized each year by Queen's Commerce and Applied Science students. It's an opportunity for interdisciplinary discussion about how environmental concerns are changing the world's economy, politics, and infrastructure. These issues require attention from incoming generations, aka us students, and from current industry leaders. CEEC is all about connecting these people and their ideas. Every year the conference features keynote speakers, workshops, and a business case study competition. This year's theme was Exploring the Green Advantage: Challenges and Opportunities Arising in Green Business.

What does this have to do with engineering? More than you'd think! Workshops included environmental impact assessments, green marketing, global food systems, wind turbines, and more. Interestingly, most of the entrepreneurs running these workshops



UW Engineering delegate Alison Lee (R) teams up with Commerce students

were engineers with no formal business backgrounds. They took an idea, like an innovative catalytic converter, tested it in different markets, and then developed a business around it. Of course, this requires some business know-how, but with a little ingenuity and ambition, it's possible to pick up along the way.

This isn't to say that business students are obsolete. Participating in the business case competition, I was glad to have commerce students on my team. We had to develop a case for an international wind turbine company, given the emerging market and technologies. If you thought there were a lot of acronyms in engineering, commerce is full of them too (CAGR, CFO, LEAN- sound familiar?). My team didn't win the business competition, but I snuck the words "innova-

tion" and "co-op" into my presentation, so I'm sure we came in second.

Knowing how to structure a company, analyze a market, or make a financial forecast isn't something most engineers really think about. Similarly, most commerce students wouldn't know how to explore new materials or innovative product designs. This is why business and engineering consulting firms make so much money! If we just partnered up more often, great ideas would run rampant. We can't ignore the economists, politicians or psychologists either. Who better than an eccentric business professor to explain why a "meat eater in a Prius" is far worse than a "vegetarian in a Hummer"? Sure, these people may not understand the science of climate change modeling or wind turbines, but they offer a different perspec-

tive that perhaps resonates more with the public than wordy science.

The rest of the conference consisted of three keynote speakers. John Bennett of the Sierra Club gave a more radical activist's take on environmental action, with tales of canoeing into a nuclear power plant and dodging whale harpoons in a raft. Ian Baines of Windstream Energy gave advice as a passionate engineer on taking risks in the business world. The conference closed with Jose Etcherry of York University, who spoke about advanced renewable energy systems in Europe and some in Toronto.

The commerce side of CEEC meant that it was ten times more formal than any engineering event. Good thing I brought dress pants, because everyone was in full suits, and there were multiple wine and cheese networking events. Of course, there was a Steamwhistle-sponsored social too, and the Queen's party school rumours were confirmed.

After speaking to CEEC's external organizer, I think they really want to bring more external delegates next year and I hope Waterloo will have a more visible presence. I'll certainly keep going back when I'm on winter study term. Conferences like this really help inspire action and emphasize the need for more networking between faculties. CEEC has been going on for 20 years now, and if I learned anything from this weekend, it's that change needs to be bigger and faster. In the words of that eccentric business professor from Queen's, "no one cares if the deck chairs on the Titanic are recyclable". It's up to us to take the initiative to hurry up and "CEEC" solutions.

Jobmine, Salaries & New Opportunities

MICHELLE CROAL

3B CHEMICAL

Two weeks ago, *The Iron Warrior* met with Peggy Jarvie, the Executive Director of Co-operative Education and Career Services (CECS) and Olaf Naese, the Communications and Public Relations Administrator to discuss what many students are concerned about these days – co-op employment. We chatted about numbers, recruiting, the economic recovery and the new Jobmine.

Iron Warrior: First of all, most students are interested in the numbers for spring. First round results were not out at the time of this interview, but can you give an estimate?

Peggy Jarvie: We don't do a ton of predictions at this stage, and quite frankly the number from first round is nowhere close to the final numbers. We can say by the end of first round it's roughly 50% or lower.

Olaf Naese: It's been lower lately, especially because of the economy. By level it's not the same either; the rate for younger students is lower still, and that's typical for first round.

PJ: The 50% after first round also includes students who found work on their own or are returning to an employer. And

that number is surprisingly constant given the economy. In the past we've done curves of the time of term students get employment. There's a large bump right after the first match, but it's really only until a month after the first match that it starts dropping off. We finalize our numbers for a given workterm at the end of the second month of the term. You can still get credit for the job for a minimum 12 weeks, and that can be quite late into the term. Usually the final numbers for the term are published around the same time as the first round match for the next term.

IW: Do you think different streams and programs have an effect on the lower number of students scheduled for co-op for this winter term?

PJ: That's interesting, because overall we have more students enrolled in co-op in the winter term than any other term. We often say spring is the hardest term, because it's more competitive with other universities, but the winter term is when we have the most students. At any rate the total number of engineering students employed for this winter is 2068, 60 more than this time last year. The numbers are pretty good, but I think it's fair to say it's taking us longer to hit numbers similar to prior years.

ON: When we look at absolute numbers,

for engineering this winter it's only about 100 more students participating. For overall, it's about 400 more students than last year, which is a lot.

PJ: It's another busy season for sure. Last spring was the first summer after the economy tanked, and our final numbers were in the mid nineties. We haven't dropped by more than 1% or so since then. The percentages may have dropped a little, but the absolute numbers have not decreased, and that's remarkable considering we have more students participating than ever before.

IW: Would you say that some faculties were hit harder than others?

PJ: I would say there are some programs that as always seem to be suffering a little more than others. Also as always, the first and second work term students struggle most. Especially the first work term students, as we're finding that more students are arriving at university with very little work experience. That's why so much of the on-campus funding has really favoured the students in their first workterm, with additional incentives to faculty or staff, just so they can get that experience on their resumes.

IW: So the main market crash was October of 2008; how much longer can you

expect students to be facing difficulties finding work?

PJ: Professor Larry Smith is a labour market economist, so he would be the one with the answer, if there is one. It's extremely hard to predict. We watch very carefully though, to see what sectors are doing better than others and we look for opportunities for student or graduate work. One of the things some analysts have written about was the uniqueness of this particular market crash – in that it affected such a wide variety of industries, whereas previous recessions tended to be focussed in a handful of countries or business sectors. This one hit pretty much everyone, with the exception of China and Australia actually. Manufacturing has been the hardest hit in Canada, but we've been fortunate that our financial sector has been relatively well regulated and stable. I think we've actually fared better through this mess than we had any right to expect, but we're still in it.

IW: Speaking of a global economy, many students are interested in international work opportunities. What services does CECS offer, and are there any plans to expand?

Continued on Page 3

Letter from the Editor

Some Random Thoughts



AMRITA YASIN
EDITOR-IN-CHIEF

Dear IW page #2,

You know the feeling when a gazillion ideas are bubbling in your head but no matter how hard you try you just can't put them under one umbrella? That's exactly what's going on in my head right now. So here we go:

Things that bother me:

1) Books used to keep doors open:

After three years in UW, I have realized that students, faculty, janitors and custodians and even the squirrels know that engineering students do come to the campus to work on their homework over weekends. Even then most of the doors to the engineering buildings are locked over the weekends. I have often seen chairs used to keep the doors open but today for the first time I saw a Physical Chemistry book. Yes, I am conservative and one of those people who think books, and any form of writing that contains a wealth of knowledge are sacred and should not be rolled in dirt. Having made it to university are we already above all knowledge that we find it fair to use books to keep our doors open for us?

2) Commercialization:

In one of my first classes of the semester, a professor spent two hours telling us how the future of hydrocarbons is bleak and we have only 70 years before the world runs out of oil and gas to meet our energy needs. In the next class another professor presented fancy numbers and made us do a calculation to show that oil reserves in Canada alone are enough to provide enough energy resources for the entire world for the next 1369 years! I understand that money is needed to do anything imaginable today and that professors like anyone else need to show the government or whoever is providing them with funding for research that their area of research has applicability in the real world and is worthwhile investing in, but does that warrant presenting this kind of information to students? I am a big proponent of the argument that universities are academic institutions, and should encourage acquisition of knowledge and growth of ideas; I do not appreciate such biased presentation of information which aims to deliberately divert students' focus to or away from any subject.

I saw the Olympic Torch in Toronto amidst a huge crowd of people gathered at the Nathan Phillips Square. As we waited for the torch to arrive, there were concerts and performances to keep the audience entertained. The torch was taking longer than expected so naturally the hosts were trying to keep everyone engaged. So they divided the audience into two groups and had them shout "RBC". And I thought Olympics were about being proud of being Canadian and welcoming athletes from all over the world to engage in sports and promote healthy relations. What surprised me even more was that the audience did actually shout "RBC". Are we, the people, so thoughtless these days that we just follow the instructions like a herd of sheep and don't think about our actions. Or

does competition make us go wild and we will do anything to win, however ridiculous the contest is? Did we and thousands of people like us who gathered at various venues across the country did so to see the Torch and celebrate the Olympic spirit and thank the sponsors for bearing part of the financial costs or to cheer for the sponsors for giving us a chance to scream at the top of our lungs? The next thing we know is that our frosh week programming on the fly lesson teaches us to cheer for RIM!

3) Head scarf or veil is a sign of oppression:

To start, I don't and have never worn a head scarf or veil my entire life and I don't plan to either. But I highly respect women who choose to do so; from my perspective it's a huge commitment to fulfil. A very common conception I have seen among people is that women covering their heads are oppressed by their family or cultural constraints. If we exercise our right to dress as we please by wearing capris or sleeveless tops, why can't we extend the same mentality and accept that women who wear head scarves and veils are just using their right to cover or/reveal as much of their body as they want to. Why do we automatically equate oppression with people covering their skin? If someone is brought up in an environment where covering one's head is a norm and they keep doing so, their attitude is born out of being raised with certain cultural values, and it eventually becomes a part of their identity. I have even heard some people say that they won't be comfortable hiring or working with such women. How does covering one's head make someone incompetent in the professional and academic world? This is probably one of the most stereotyped groups and it's time that we think about it with an open mind and accept that people might have different preferences than us and should not be judged excessively.

4) Students who choose Engineering by elimination:

Have you ever met students who say they chose engineering because science has way too many labs, med school takes too long, math is too boring etc, or those who chose mechanical because there was too much coding in computer and electrical and they don't like chemistry? And the decision to take Engineering over any other program in the first place was due to the fact that engineers get a job right after obtaining a Bachelors degree. Such attitudes not only boil my blood, but in my opinion they are unhealthy. This mentality or other similar mentalities such as medicine and law are ideal because they are so well paid, etc, give birth to a generation of professionals who count hours till the close of business as soon as they reach their workplace. Their work is an obligation and not something that they look forward to. A job that is done half-heartedly cannot yield good results so we have a mediocre job done by someone who wasn't too happy about doing it in the first place. That is why in high school one of the things that teachers and counsellors emphasize the most is choose a program that you like and that you will enjoy practising for the rest of your life. A profession that you choose because it was the smartest decision to be made at the time will not benefit anyone.

5) Respect for NON-multicultural individuals

We live in Canada, and go to University of Waterloo, one of the most ethnically rich universities in Canada. I hear different languages while having lunch, walking in the hallway or studying in the library. And that's all cool as long as people who are conversing around me recognize my presence and don't speak in a language that I don't understand. It's rude, and insulting, makes me feel excluded and wonder if the people are talking about me. Everyone's always talking about how we should celebrate and respect cultural differences. Part of 'respecting' also means that these differences, such as language barriers should not be brought out if they exclude certain individuals. We should not use cultural differences as an excuse to alienate others. This is what eventually leads to hostile feelings between different ethnicities and racial discrimination.

Another two weeks passed by and another issue, the fourth issue of the term is here. Midterms are mostly over, I hope, and now it's up to the projects and presentations to give us nightmares. We celebrated IW's 30th anniversary last week by having a showcase. I was happy to see some people take a lot of interest reading the old archives. I thank everyone who came out and took the time to appreciate our efforts. As you can see, following the pattern of the last issue, I decided to talk about the content at the end (so you actually read my editorial...hehe). We only have 12 pages of content this time because surprisingly some students, particularly the frosh are still having midterms (which I thought were over two weeks ago). Nonetheless we do have really good articles for you. Continuing from the first page is an awesome interview with CECS, something that all of us are concerned with. We have articles on International Women's Day, ESSCO celebration of the National Engineering Month by having the engineering schools build a Rube Goldberg machine, and an article from an Engineers Without Borders co-op student in Malawi, and two pieces on the Winter Olympics. We still have our regular columns: Health and fitness, Review Based on the Trailer, the Fashion Files, Gaming, and articles by Dangerman and the Brew Man Group. There is a special EngSoc Election insert that you all should definitely read and think about. You will probably hear this from other sources too but EngSoc is having elections for the A-Soc Executive; voting is online from March 13th to March 16th. EngSoc organizes all the cool events that give you the break you need from studying 24/7 and driving yourself crazy. And if you don't care too much about these events, you definitely care about PDEng and course critiques so be aware that people heading EngSoc are your official voice to the faculty and administration on those issues too, so it's your responsibility to make sure that the right people are representing you.

Before ending, a friend just messaged me to ask about Oscars and I didn't even know they were happening today. Oh the joys of writing an editorial for *Iron Warrior*! (which is actually finished before Sunday midnight this time)

Smile C:
Amrita Yasin

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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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.

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Send your submissions to iwarrior@engmail.uwaterloo.ca

Winter '10 Publication Schedule:

March 24

PDEng Renewal Task Force Update

SASHA AVRELINE
PDENG TASK FORCE

In this issue of the *Iron Warrior* I would like to once again take a few minutes to update you about the recent progress of the PDEng Renewal Task Force. As many of you know and have received e-mails about, the Task Force has released the first set of recommendations for renewal of PDEng on Friday, February 12, 2010. The recommendations focused on some of the short-term changes to the program as well as the long-term changes regarding the overall structure of the program and its fundamental assumptions. Since then, the Task Force has asked for your feedback and has also gathered feedback from the Dean, faculty adminis-

tration and professors, PDEng staff, PDEng mentors, alumni mentors (who are in some cases employers of Waterloo co-op students) and finally co-op staff. In general all of the recommendations were fairly welcomed and a lot of great suggestions as well as further questions were received in the feedback. Sincere thanks to everyone who took the time to read the recommendations and to provide the valuable feedback – over 200 pages of comments were received and all will or have already been taken into consideration. If you haven't had a chance to read the recommendations and/or comment on them – they are still available on the Task Force's website: <http://www.engineering.uwaterloo.ca/pden-grenewal>. Please feel free to share your comments, questions and concerns in the general

feedback area. Moving ahead, starting this week you will be able to see some of the statistics from the feedback received right away and eventually updates on some of the short term recommendations and their implementation, on the website. I encourage you to visit the website this week and review the new updates. Some of the short-term recommendations will be implemented in time for the spring 2010 term. During the last couple of weeks, the Task Force has been busy looking into some of the specifics of renewed PDEng such as workload, flexibility in completion of assignments and marking scheme as well as some more short-term recommendations. Also, last week the Dean of Engineering, Dr. Adel Sedra, attended the Task Force meeting and provided some great information about

budgeting and resources involved in PDEng. Dean Sedra is happy to share some of those announcements this week at the EngSoc meeting as well as in further communication opportunities with the students.

Soon the Task Force will also look into issues such as marking scheme for the renewed PDEng courses, integration of departments and delivery of the courses. Following that period a new set of recommendations focusing on some of those specifics will be released.

This is all for now, stay tuned for more updates. If you have any questions, concerns and/or suggestions please feel free to reach me or David by e-mail: aavrelin@engmail.uwaterloo.ca or asoc_vpedu@engmail.uwaterloo.ca.

CECS Interview

Continued from Page 1

PJ: We have about 8-10% of students who work outside of Canada each term, about half of whom work in the US and usually about another 40 countries each term. We recently expanded to a 5 person international team. This consists of 3 co-ordinators and 2 international advisors. The international advisors work with students to make sure they have visas and all the travel documents in place. They also do some cultural briefing, which depending on where you're going can be very important. Two co-ordinators cover the US, and the third takes care of the rest of the world. A lot of the students who work internationally, particularly in the first work term, are returning home to find work and are living with family.

IW: Are these jobs through Jobmine?

PJ: It's a mix, but more finding their own. We do have international jobs on Jobmine, but there are challenges with those outside of North America. Visas and timing are a big one, since it can take 4-6 weeks to process a visa application. But the biggest challenge is cost: outside North America salaries are generally lower and costs of living and accommodation are generally higher, not even including the cost to get there. We don't do a lot of job development internationally, because we need to be confident that we'll get students who both apply and accept offers. We tend to get too many students who will receive an international offer, then choose to accept a domestic job.

ON: We even have that issue with students choosing not to go to another area in Ontario, or other provinces in Canada now.

PJ: And that's a challenge too. It's very difficult to keep employers committed to our program, when they post or offer jobs that go unfilled by the students. We work very hard to get the right number of jobs in the appropriate number of fields, but if you get into a field where most of the jobs are not where you want to be, we can't manufacture jobs out of thin air. Not all students recognize that reality check.

IW: Do you have any comments on the status of the new Jobmine system?

PJ: We're actively working with Ken

McKay's team. We're currently targeting a limited pilot with Architecture for the spring term, for students scheduled to work in the fall. The current plan is to go live for everyone by January of next year. The reason we're piloting with Architecture is because they're smaller, and the most easily isolated; we don't want them to have to use two systems at once. Most other students work with such a broad range of employers, and most employers outside of Architecture and Pharmacy also hire across an array of programs.

IW: Can you give away any features students can expect?

PJ: We're going to improve the search capability for both students and employers, and resumes will be pdf-able! Overnight downtime for maintenance should be reduced significantly; navigation should also be a lot more intuitive. It's a huge process re-writing something like this, because we need to cater to the needs of employers like RIM who hire many students a term, and other employers who may only hire one. But we're getting close!

IW: One rumour I heard was that employers are starting to lower the average pay rate. I just glanced at the salaries published for

2009, and was personally surprised to see the 6th work term average for engineering. Any comments?

PJ: No I hadn't heard that at all. Keep in mind that the salaries are collected from students. We're looking at how to analyze and present those, by removing outliers and such, but the way it's being reported may be changing.

IW: Have you seen any more cancellations than usual, compared to the fall and spring terms?

PJ: Not this year. Last year we saw a lot of cancellations, mostly due to funding for co-op being cut, but that seems to have stabilized. The uncertainty seems to have subsided. We also had more jobs last year being rescinded; where offers had been made and then funding was cut, but that has stabilized as well. There is a certain amount of cancellation that we always see, due to project cancellation or other cuts. However, the quality of the jobs posted has improved, and by that I mean that employers are posting jobs they really want filled and are committed to.

IW: What are some techniques CECS has been working on to attract new employers?

PJ: We've hired a new Director of Market-

ing, and that really makes a difference to the support we're able to provide to the co-ordinators. We also have a new full time Manager of New Business, who is responsible for developing new relationships with companies that haven't hired with us before, and to make those leads into jobs. We participate in trade shows, such as the Human Resources Professional Association, The Top 100 Conference. It takes a long time to turn a lead into a job, but we're actively targeting associations that might be interested in hiring students.

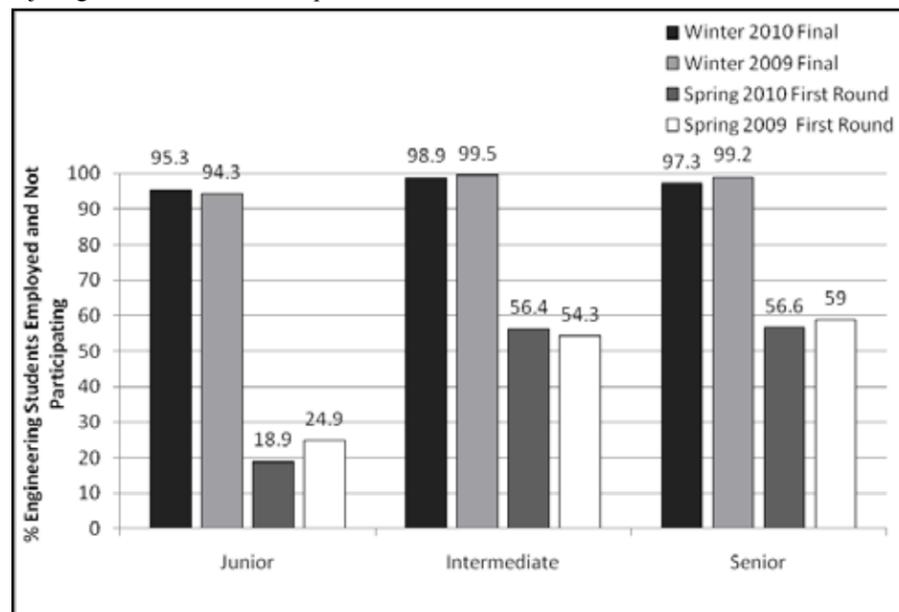
ON: We also try to encourage companies to hire by pointing out funding opportunities. We now have identified a lot more funding opportunities that employers can apply for in order to subsidize students that they might not otherwise consider. Also here at the University, they've stepped up the number of students they're hiring.

PJ: Yes, they've been amazing. The University is our biggest single employer of co-op students, and has been one historically. This year, there was a lot more funding provided by the Undergraduate Research Internship, and incremental funding from the Provost and the Dean of Engineering specifically. When the hiring freeze was put on a year and a half ago, co-op hiring was excluded, which meant departments could hire students even when they couldn't hire full time staff.

IW: Finally, do you have any advice for students looking for employment?

PJ: The biggest one is to think flexibly, particularly about location, the kind of work and the salary you're looking for. We also encourage students to use their personal and familial networks to open up opportunities. Returning to a previous employer can also be a big advantage, but with context. Don't go back to the exact same job, as that won't be a learning experience. Look for more responsibility or work with a different team. Personally, I encourage students to do that regardless. Returning to an employer with increasing levels of responsibility demonstrates on your resume something that you can't show by having 6 different jobs. Employers tend to like it as well, because they get a better return on their training investment.

IW: Thank you very much for your time, Ms Jarvie and Mr. Naese.



This year's engineering employment rates for Winter and Spring compared to 2009. NB: First round match results may not be indicative of final employment numbers.

U of Guelph Hosted ESSCO Hockey Tournament

MIKE MCCAULEY
3B MECHATRONICS

5 hockey games and a kegger in less than 24 hours - what more can you ask for in a hockey tournament? Engineering schools from across Ontario gathered in Guelph this past weekend for some hockey and Waterloo was there to show us proud! Matching up against teams from Western, uOttawa, McMaster, and Guelph; we had a strong showing and some great fans to cheer us on as

well! Losing to uOttawa on Saturday night in the round robin and then getting to face off against them again on Sunday and win to advance to the playoffs was a huge highlight and big boost for



UW Engineering Hockey team poses for a group shot at ESSCO tournament in Guelph

the team! Waterloo placed 4th overall in the tournament. We had an impressive amount of participation that lead to a very talented team that could have easily taken the tournament with some more time prac-

tice time. We had great goaltending, some solid men on the blue line and a skilled crew of forwards who were able to put some impressive pucks in their net! It was great to see some new faces out for the weekend - thanks to everyone who signed up to play.

If you are interested in playing in similar tournaments in the future, this is an annual event and we hope to have another great team out next year. Invites are sent over the mailing list so keep your eyes peeled for future opportunities!

Technical Solutions to Complex Problems

ROB SPARROW
3T SYSTEMS DESIGN

Over the last month I've been working with Engineers Without Borders Canada (EWB) in Lilongwe, Malawi. I've been continuing my work from last summer, which I also spent working for EWB in Malawi. This time, I'm placed at the local NGO Basic Services Development Agency (BASEDA) looking into issues surrounding water point functionality, and the systems that have been developed in an attempt to tackle them. Something that I've been running into over the last month is the huge number of well intentioned Northerners in Malawi (or back in their own countries) attempting to design solutions to the complex problems faced in rural sub-Saharan Africa.

One of the most common myths among people interested in development, especially engineers living in the North, is that there is a "silver bullet" solution to address each development hurdle. For engineers this silver bullet usually takes the form of some technical innovation that, at first glance, appears to be a solution that perfectly addresses the problem. However, the issue of human development is incredibly complex, and includes many problems that do not have widely replicable, one-time interventions. Take for example the Play Pump, a technology that gained enormous publicity (and funding) in recent

years. The Play Pump is a merry-go-round that raises water from aquifers in the ground as children expend energy spinning around. Water is piped to an above ground tank which has advertisement placed on it in order to raise funds for maintaining the pump and water is readily available whenever it is needed. The Play Pump satisfies a large number of criteria for an appropriate development intervention:

— infrastructure, its use of children's playing movements is innovative and marketable, it was developed in South Africa (homegrown solutions tend to equate to appropriate solutions in the minds of many people), and the use of advertisement

on the storage tank gives the impression of sustainability. Like most technical silver bullets, however, the Play Pump misses the mark. The first assumption that the inventors of the Play Pump made was that the issue with water access in sub-Saharan Africa is one of effort — that if it weren't so much work to use a traditional hand pump, access to potable water wouldn't be an issue. The reality, however, is that the twenty minutes of work required to raise a family's daily water using a traditional pump is rarely even an issue. More important are the economies of scale to support private

sector repair services and spare parts supply chains for when pumps break down, inequitable placement of infrastructure, and the prescription of inappropriate technologies. The list of missteps made in the development of the Play Pump go on: prescription of a complex technology that requires specialist maintenance, a design that satisfies the desire of donors to provide toys for children but overlooks

whether or not children are even interested, and an estimate of a community's water access needs that is wildly out of whack with reality.

The Play Pump, though one of the most visible and talked about failures of the appropriate technology movement, is by no means the worst or the last. Northern donors and the public at large (not just engineers!) love the silver bullet technical solution. These are easy to understand, as they appear to address a problem at the surface while ignoring the complexity that lies beneath. A onetime installation of infrastructure is also easy to fundraise for, as there appears to be a direct impact and the reasonable cost can be covered by an individual or a small group. Most importantly it satisfies the need of people living in the North to apply their technical expertise to the problems of those less fortunate,

inevitably resulting in a technical solution to an economic, social, or cultural problem.

The tragedy of the application of technical fixes to non-technical problems is that failure is often ignored, or if recognized, is often seen as being "good enough". People believe that the Canadian engineer developing an improved cook stove, though misguided, has his or her heart in the right place, and so should be commended for trying to make a difference. However, try relating this attitude to your last coop job. Imagine if you had decided to design a groundbreaking new product that takes advantage of all the latest breakthroughs in your particular field. However, the product is too expensive for anyone to purchase, attempts to replace already established and effective technologies, and requires inputs that are impossible or infeasible for people to acquire. You'd be out on your ear pretty quick!

In Canada we recognize that technical silver bullets don't exist for the problems we are trying to grapple with. In developing countries, we tend to believe that because the problems seem very basic to us (like getting people access to potable drinking water) our immense technical expertise can obviously mend the situation. This is not the case. It is our responsibility as Canadians, and as global engineers, to apply the same rigor and analysis to understanding and helping to address the issues being faced in the developing world.

In developing countries, we tend to believe that because the problems seem very basic to us our immense technical expertise can obviously mend the situation.

There's Gold in Them Hills! An Olympic Wrap-Up



JON RADICE
3B CHEMICAL

I better get this out of the way at the start. Two issues ago, I said a few things, made a few predictions, and had the audacity to say that the Canadian Men's hockey team would not win gold. Well, it wasn't an easy win; Brodeur buckled as I predicted, and I will even go a step farther to predict that this NHL season will be his last full season. And I'll have you know, I was one of the first people out on King cheering when they won, and they really strung together some majestic games. But enough about hockey, there's a lot more to cover.

First things first, let's get the facts you all know out of the way. Canada won 14 gold medals in these Olympics, more than any other country. 26 medals was the most Canada has ever won at any Winter Olympics. Own the Podium, blah, blah blah. You've heard enough of that. If you want the list of events we won, check Wikipedia. But let's look at some of the more fun and controversial parts of these Olympics.

My favourite Olympic sport is no doubt short track speed skating. The whole sport

is designed to mimic a roller derby with the added fun of attaching massive blades to everyone. It's fast, it's exciting, and it's unpredictable. One of the saddest moments was watching the women's relay finals in short track. The Korean women won very handily, getting a new world record in the process. They grabbed a Korean flag from the crowd and began doing their victory lap, all smiles and excitement. Five minutes later, a judge comes to the middle of the rink and announces that the Korean team was disqualified for minimal contact while passing a Chinese player. The look on their faces made me instantly sorry for them. The worst part? The second-place Chinese time set a world record too, despite being about 2 or 3 seconds behind them. The Koreans lost their medal, and gave away their names in the record book as well. Truly heart breaking. The Canadians ran into their own share of controversy outside of that match, in the men's 500m final there was a crash at the end that ended up disqualifying the American Apollo Ohno because of his contact. The whiny Ohno said the Canadian made contact first, which could have been bad news for the gold and bronze we won from that race.

Canadians are kind of amazing at the —cross sports. With a gold in both ladies snowboard and ski cross, and a silver at

men's snowboard cross, we cleaned up pretty nicely at the top. We would have also been in the medal running for the men's ski cross, but unfortunately Canadian Del Bosco, who had blazing preliminary runs, crashed near the bottom of the medal run. Luckily, the cross sports seem to house many older racers, so Del Bosco could be a face to contend with four years from now.

Joannie Rochette deserves a mention here as an outstanding athlete. Upon hearing that her mother died 2 days before her performance, Rochette went through with her individual figure-skating program and went on to capture the bronze. Many people say that her marks were inflated because of her circumstance, but while her second free program was slightly weaker than the fourth place skater from the US, her short her short program was still much better, and those marks still put her over. And on the other side of the rink, I actually agree with the male figure-skater Plushenko and his comments directed at the American gold medalist who ousted him. Many people find figure-skating to be a non-sport, if you don't look like a figure-skater, then you're immediately docked. Plushenko was outraged because the gold went to someone who didn't even try to pull a quad. This almost warns the male skaters about trying to push

themselves; rather you should stick to your safe moves and never push yourself to the scarier and harder moves. Athletic progression needs to exist, and I'm with Plushenko and will say, any man at the Olympic level who doesn't even attempt a quad is no man at all.

And our gold medalist at the snowboard slalom is 35 years old. Good for you Jasey Jay Anderson.

Of course these are just a taste of what made these Olympics great. Each athlete, whether they were golden or dead last tried their hardest, and was an absolute joy to watch. This is a huge thank you to every athlete worldwide; while you may have made me skip every assignment due in the last few weeks, I had a blast watching you. Vancouver put on a great show, and the what-the-hell ending full of hot Mounties dancing with hot leafs may have been the patriotic moment in my life. But back to reality, back to work, back to counting the days until London 2012 (less than 900!) and World cup (less than 100!).

Oh, and Also Jon Montgomery, gold medalist in the craziest sport- the skeleton, is the best Canadian ever. Doing an interview while walking down the street chugging a pitcher of beer, gold medal around his neck, that's a role model!

ESSCO Celebrates National Engineering Month

Rube Goldberg Machines are built across Ontario Universities

ALESSIA DANELON
2N MECHANICAL

"A Rube Goldberg machine is a deliberately over engineered machine that performs a very simple task in a very complex fashion, usually including a chain reaction."^[1]

Key word: Engineered.

So what better way to teach students about the innovation and creativity associated with the engineering profession, than by having them build their very own Rube Goldberg machine? Well, there was a better way, to have machines built all across Ontario and have each machine trigger the subsequent one.

Brilliant.

On February 27th, 2010, member undergraduate engineering students from across the Engineering Student Societies' Council of Ontario (ESSCO) invited high school students to come to campus and build complex Rube Goldberg machines, all to perform the simple task of turning on a sign that read "E4TW" (the general public's version of ERTW) at the Ontario Science Centre. High school students were invited to the University of Toronto, Lakehead University, University of Western Ontario, University of Ontario Institute of Technology and the University of Waterloo to help create these masterpieces. Together with dedicated engineering undergraduate students, they built some phenomenal machines.

Each machine featured its own signature

design. Some were impressed by U of T's 2 storey tall machine, while others were awed when Waterloo's machine used fire to trigger the next step. Western's machine even went down a floor and all the way back up! UOIT managed to turn on a water tap to fire a slingshot, and Lakehead brought back memories of Red Green with their feature material, duct tape.

High school students had tons of fun and learned a lot about engineering by helping design and build their Rube Goldberg machines, and having the opportunity to work with engineering students. Even more students, parents and children were impressed when the entire run of machines, from U of T, to Lakehead, to Western, to Waterloo, to UOIT, was broadcast

at the Ontario Science Centre. Hundreds of people awed the spectacle and were amazed when the sign set up at the science center was lit up from a signal that had gone all over Ontario.

The event was a huge success, and videos of most of the machines are currently posted on YouTube. Just search the school name and keywords "Rube Goldberg", and you'll probably find it! ESSCO looks forward to organizing the event next year, and celebrating engineering across Canada for National Engineering Month.

[1] Rube Goldberg Machine. (n.d.). Retrieved 03 05, 2010, from Wikipedia: http://en.wikipedia.org/wiki/Rube_Goldberg_machine

The Iron Archives

Fire In High-Voltage Lab, Break-in In POETS, C&D, & Stereotypes About Engineers



ANGELO ALAIMO
2T ELECTRICAL

Winter 2005 Issue 4 – March 16, 2005

In this issue of the *Iron Warrior*, the front page of the newspaper contains an article by Cindy Bao, 3B Electrical, reporting the High-Voltage Lab had caught on fire.

“On Monday, March 7th, many faculty members, students and staff had come to Carl Pollock Hall for work or class, only to find the building was closed for the day due to a fire that occurred in the high voltage lab at about 4 am.

The exact cause of the fire has not been identified at this point. Nobody was in the lab at the time and no injuries occurred. The estimated damage is over \$1 million in equipment, with another \$150,000 in smoke and soot damage to the lab and two offices above it.

Fortunately, the fire was largely confined. After some initial cleanup, students and staff were able to return to classrooms and offices the next day. The EngSoc C&D also resumed its operations.

Air purifiers and high-powered fans have been placed throughout the building to eliminate the smell of smoke, while all surfaces, floors, and walls are being thoroughly cleaned.

Reconstruction of the lab is expected to take approximately three months, as it must be completely rebuilt. However, it may take years to completely replace all the equipment and make up for the lost research.”

The lab was eventually rebuilt, and reopened in late October 2007, almost 27 months later.

Winter 2001 Issue 4 – March 2, 2001

If you read last issue’s *Iron Archives*, you would have read an article from 1990 reporting on POETS renovations which included an alarm system. Well, it looks like no alarm was ever installed as 11 years later, Alan Matan, 3N Electrical, reported a break-in.

“POETS, the UW engineering student lounge, was sacked by a thief (or thieves) in the early morning of February 17. The Miss Pacman video game machine had its coin mechanism smashed open and its load of quarters stolen. The foosball table was also pillaged, with some of the player control arms damaged. The AV cabinet doors behind the bar suffered a smashing from a standard POETS barstool.

The locks, intended to prevent a determined thief from gaining access, were easily defeated, though none of the equipment was taken, indicating that the thief was strictly after cash.

The door that links the C&D office to POETS had pry marks but held up to the attack.

Mark Molison, EngSoc VP-Finance remarked that though the damage is probably covered by insurance, he wasn’t sure if EngSoc was going to submit a claim.

Shock and Dismay filled regulars at POETS, especially since the lounge is no longer left open during the day unless an EngSoc exec member or a director is present to ensure no further shenanigans occur. On the violation of his daytime home, one student

remarked, “It just feels so dirty in here... more so than before.”

Winter 1994 Issue 3 – March 7, 1994

I’m sure most of you have stepped into the C&D at least once since coming to Waterloo, and if you’re like me, enjoy the fact that it’s open long hours and has cheap food. Back in 1994, the C&D apparently was not as organized as it is today, and Stephen Kingsley-Jones, 3A Electrical, outlines a future vision plan for the C&D.

“The Engineering Coffee and Doughnut Shop has been one of the primary services offered by the Engineering Society since its inception. In all that time there has never been a thorough, organized approach to the long term position of the C&D and its operations.

The time has come for a plan. Not a new plan, for that would imply we had one previously, no, we are simply going to look at our overall operations and determine what is the best strategy for now and the next two years”

For the majority of the article, Stephen outlines why C&D operations should be changed and what has been suggested.

Interestingly, Stephen notes, “The Math Society is much larger than we are and has grown that way due to proficient management and accepting the fact that change is necessary. We should use them as a guide and model.”

This is interesting due to the fact the Math C&D has been running into debt recently and those within Math have mentioned looking in to our operations for how a C&D should be run.

Winter 1991 Issue 4 – March 1, 1991

An anonymous 4th year Psychology student wrote the following about engineers.

“How can you tell someone is an engineering student? The engineering students are the ones who are drunk, rude, and obnoxious. They spend their free time watching strippers, making sexist jokes, and seeing who can consume the most alcohol. They look down on anyone who does not know how to design a bridge, but they are completely unable to comprehend any kind of moral or ethical problem, including the ones that are created by their own bridge building. They are secretly jealous of “artsies”, not because we work on human problems, but because we have fewer hours in class which translates into more time for drinking.

None of the engineers I know personally fit the stereotype, and so I know that this impression of engineers is not accurate. However, it was the first picture to come to my mind of a “typical” engineering student. A tiny minority of the engineering students are perpetuating this image. The myth is reinforced when I hear about such debates within engineering as whether or not to cancel drinking contests, to change the name of the (Ridgid) Tool, or to hire strippers for society functions, but I do not hear about any positive work being done by the engineering societies.

Stereotypes die hard. Engineers have a reputation to overcome, and many people are working hard to overcome it. Our industrialized society needs the skills of engineers, but we also need to see that there is more to a balanced education than not spilling your drink.”

International Women’s Day - March 8



MICHELLE CROAL
3B CHEMICAL

International Women’s Day arose in response to the civil unrest surrounding the turn of the last century. Women representing unions, socialist parties, and working women’s clubs fought for improved working conditions, better pay, and rights to vote, work, be educated, hold public office and end discrimination. In 1910, at the second International Conference of Working Women in Copenhagen, Clara Zetkin, the leader of the “Women’s Office” of the Social Democratic Party in Germany, proposed an International Women’s Day to celebrate achievements and press for their demands. Since then, IWD has become a day for advocating peace and women’s rights and participation in social, political and economic processes. IWD is a national holiday in some countries, such as China and most of the former Soviet Union.

The new millennium has seen a shift in

both women’s and society’s attitudes about women’s equality rights and freedoms. Many of the younger generation feel that the battles of their mothers and grandmothers have been won, while the complexity and longevity of patriarchy remain. Many improvements have been made, with increased visibility of women in executive boardrooms and as role models in many other aspects. Women today do have many more choices than in previous years, but unfortunately, pay equity is still a problem in many industries and countries. Additionally, women’s health and education are globally worse than their male counterparts, and violence against them is still a serious concern.

The focus for International Women’s Day has also shifted accordingly, and serves to inspire and celebrate women’s achievements. Political rallies, protests, business and networking conferences and government activities are common events held on Women’s Day, while other groups celebrate with theatrical performances, art and fashion.

Personally, I would like to say that the

women’s rights movement is not “just asking for things because we see inequality”. Women who are accepted into university programs, hired into industry or elected as governmental officials still need to earn that position – it’s not a free ride and shouldn’t be one. The purpose of women’s rights is to make these opportunities more available by breaking down barriers of what roles are traditionally filled by women and by men. No one ever said that women’s liberation is about making women better; it’s about understanding gender differences and applying them equally to get the most gains (economic, social and cultural) out of society. For example, allowing paternity leave is something that has greatly improved the work-family balance for both genders, as both parents can spend time with the child or the mother can return to work sooner if she wishes. This is just one of many successes.

Erin Chapple from Microsoft visited UW last week as a guest speaker for the Women in Engineering committee meeting. She proposed a few things that struck me as important for women in industry to know:

* Ask for what you want! Your managers or supervisors can’t read your mind and you likely won’t get promoted unless you vocalise your goals and intentions. Find a sponsor- someone who will open opportunities for you, (as opposed to a mentor who serves in an advisory position).

* Be comfortable in your own skin; have congruency with your inner and outer selves. Don’t change your beliefs or personality to fit in with a workplace.

* Finally, make the most of the “30 second elevator pitch”. This means to take charge of opportunities that arise, such as pitching your current project or success to the president of the company when you meet in the elevator.

By the time this issue comes out, Women’s Day 2010 will have passed, but please take some time out of your day to celebrate and respect your mothers, sisters, girlfriends, mentors and female professors who’ve contributed to your life. If you’re female, celebrate your personal achievements as well and have confidence in yourself that the world is at your fingertips.

Canada Wins The Pot At The Olympics

ANGELO ALAIMO & MIKE SELISKE
2T ELECTRICAL & 2A COMPUTER

In the Winter Olympic Games in Vancouver this past month, our country has proudly won the most number of Gold Medals ever won by a single country during Winter Olympics and achieved dominance in our sport. Our neighbours to the south are claiming dominance over the games having won the highest medal count.

As I was glued to my TV or computer screen watching almost every event, I noticed a trend where Canadian Athletes continuously finished 4th and 5th in a large

number of events. I thought for sure that if there were Copper (4th) and Zinc (5th) medals, Canada would most certainly be in the lead, so now since the games have wrapped up and medal tallies are final, I decided to create my own medal count which included 4th and 5th place in the total count.

I was surprised to see that the overall standings didn’t change much although Canada came 2nd instead of 3rd and had double the amount of 5th place finishes than any other country at the games.

Another interesting look at the medal count comes from an article in “The New York Times” which examines the market

value of each medal handed out. The article states the Gold Plated medal is worth \$537, and the 92.5% Silver medal is valued at \$300 while the Bronze medal is mostly copper and is worth only \$3.40. Taking this information into account, if the medal count is re-evaluated based on total market value, Canada comes in first place with a total value of \$9635 with the US coming in second at \$9377. If you count every medal won by a country, including one for each player on a team, like every hockey player, Canada earned \$41,043 while the US only brought home \$25,719. Included is a table with the medal count including copper and zinc!

	G	S	B	C	Z	T
1. USA	9	15	13	8	5	58
2. CAN	14	7	5	7	16	56
3. GER	10	13	7	8	8	54
4. FIN	9	8	6	6	5	40
5. CHN	3	6	6	8	6	38
6. KOR	2	5	7	9	0	33
7. SWE	5	2	4	8	2	29
8. CZE	6	0	3	7	4	27

ENGINEERING SOCIETY EXECUTIVE REPORTS

Acting Presidential Report



MIKE MCCAULEY
ACTING PRESIDENT

EngSoc Executive and WEEF Director election voting is happening ONLINE March 13 -March 16. Candidates have already started campaigning – they will be doing class visits and I'm sure you have seen the posters in the halls. You will also see them at the EngSoc meeting March 10th and at the Candidate Forum on March 11 (11:30 am-1:30 pm) in CPH Foyer. The Executive oversees all internal events, finances, and they are your voice to the faculty as well as external groups such as ESSCO and CFES. Voting is very important and ensures we have the right people representing us and leading us into the future! Check out the candidate bios in this issue and keep your eyes out for more info coming over the mailing list.

There has been a lot going on with PDEng lately as many of you know! The Dean will be at the EngSoc meeting on March 10 to give some more insight into the future of the program so be sure to come out to hear the latest. There have been some major developments in the last little while!

Since my last article we had our Middle of Term (MOT) party in SCH. Unfortunately, due to midterms, we did not have the impressive turnout numbers as we saw with BOT but be sure to come out to EOT coming up March 26. More details to come!

March Break Open House is coming up on March 16th from 9am-3:30pm on the third floor of RCH. This event showcases Waterloo Engineering to prospective high school students. EngSoc will be there with a booth so feel free to stop by and chat with some keen high school students to get them excited about Engineering at Waterloo. There will also be displays from the faculty, departments, as well as student teams.

VP Education Report



DAVID LIU
VP-EDUCATION

Hey A-Soc,

I hope your job hunting and midterms went well. Can you believe that there are only 4 weeks left until the end of classes? Time flies. What have you done this term?

Last week we had resume critiques, course critique preparation and an academic rep meeting. Resume critiques went well as a significant portion of on-stream students are still looking for a co-op placement. In the academic rep meeting, we had more than 30 reps come out and discuss the importance of course critiques, the debt load survey and the retention survey. We also brainstormed ways to incorporate Waterloo SOS (Student Offering Support) exam aid sessions to UW Engineering.

The idea of Waterloo SOS is to allow enthusiastic upper year students to run mid-

term/final exam review sessions to aid students. In return, the participants will donate \$15-\$20 to Waterloo SOS with all proceeds going to sustainable education projects in developing countries. The Waterloo SOS expansion plan to UW Engineering is underway and we need your help. If you are interested in getting involved please email me at s14liu@uwaterloo.ca or visit www.waterloosos.com.

Please keep in mind that course critiques will be coming your way next week. Please take the time to write specific constructive feedback for your professors to help them improve and get fair assessment in their annual review with their Department Chairs.

Finally, keep in mind that PDEng renewal process is almost complete. Be sure to look at the PDEng Renewal recommendations at <http://www.engineering.uwaterloo.ca/pdengrenewal>. I think there have been a lot of positive changes. Now we need to know what you think.

VP External Report



MIKE MCCAULEY
VP EXTERNAL

The External world has been pretty dormant in the last couple of weeks but I do have a few things to say. Firstly, I'd like to send a huge thank you to the National Engineering Month

directors, who pulled off an amazing Waterloo contribution to the Ontario wide Rube Goldberg machine! Search "UWaterloo – Rube Goldberg" on YouTube if you want to check it out!

In other news, Bus Push is coming up this Saturday at 10am. We will be pulling a city bus from campus to downtown Kitchener for the Heart and Stroke Foundation. Be sure to pick up your pledge forms from the Orifice

and collect at least \$25 in donations to participate! C&D will be providing breakfast to start the day off right and you will get a free t-shirt for your efforts.

The ESSCO (Engineering Student Societies' Council of Ontario) Hockey Tournament was this past weekend and Waterloo had a great showing! It was a great weekend of hockey and engineering. This is an annual event so keep your ears out next year if you are interested in playing!

Lastly, a friendly reminder to make sure your voice is heard – VOTE in the upcoming election March 13-16 to have a say in your next EngSoc Executive.

VP Internal Report



TIM BANDURA
VP-INTERNAL

Exec Report $e^{\pi} - \pi$ ('cause I actually don't know which one I'm on)

And we're back to business after all those icky midterms! Once again events are running! Speaking of events, last Thursday about 27 of us boarded a bus and headed down to Cambridge! Why would anyone in their right minds go? TO SEE ARCHITECTURE OF COURSE!!! We went down to their favourite Thursday night event at Walshee's: free pool night! It was a great time meeting and chatting and shooting pool. No one should miss an opportunity to meet Architecture! They are a really awesome bunch!

Also of note last Saturday was Engsoc's Curling Bonspiel! As most of us were inspired by the recently finished Olympics, there were plenty of antics that all went stronger, faster, or higher than the rest. There were some funky pants, a lot of comments on the men's or women's teams from the Olympics (Seriously! Doesn't Kevin Martin look a lot like Vizzini from the Princess Bride? IT'S INCONCEIVABLE!), and plenty of "HARD! HARD! HARD!" cries going around (even when they were unnecessary).

Upcoming events include Semi Formal on March 12th! The theme will be "Around the World" and I've got my danc-

ing boots all set to go! That's right, boots! Tickets are only \$10 in advance so hurry and grab yours! If you know an Irish jig, or a Brazilian samba, a simple waltz, the latest hip hop grove, a snazzy jazz step, a back-busting break dance solo, or just in general how to move to a beat, I expect to see you there! I might have a step or two of my own...

Also something very important that is coming up is our dodgeball tournament!!! It will happen on Sunday, March 14th. Keep an eye out for more details soon! Maybe you can convert some of your dance moves from Friday to dodgeball!

TalEng, our termly talent show, is happening on Tuesday, March 16th. If you have any sort of talent, whether it is juggling, or signing, or playing a musical instrument, or other skills involving some level of dexterity, sign up on the Orifice door!!!

On St. Patrick's Day, we've booked out the CIF Icefields from 11 PM until midnight for Engsoc Ice Hockey! All you need to bring are skates, gloves, and a hockey helmet. If you can't make this ice time, don't worry! We've also got the ice at the same time on March 24th and March 31st.

Engplay will be holding their performances on March 18th and March 20th. Keep an eye out for more details! It will be unlike any Engplay you've ever seen before!!!

OMG SO MUCH IS HAPPENING! Hope to see you out! Try to come to one of these amazing events! It's a great way to take a break from our busy lives!

Beyond the Ring

Bridging the gap between university and the work force



Andrew Paul Williams, BSc
CE Alumnus
Class of 1989



Jennifer Nodwell, BSc, P.Eng
ME Alumna
Class of 1999

The Speakers Will be Discussing...

Volunteering: Giving back to the Community - building a better tomorrow, deed by deed today
&
"A light hearted look at dealing with non-engineers"

Question and Answer Period to Follow

Thursday March 25th, 2010
11:30 am to 12:30 pm
PHY 150

Food and beverages will be provided



THE ODYSSEY: An Epic Fail

Because sometimes the long way home is more fun

Eng Play Winter 2010 Presents:

THE ODYSSEY: An Epic Fail

Thursday March 18th 7:30pm MC 2065

Saturday March 20th 7:30pm MC 2066

Tickets \$2.00

On sale in the Orifice and at the door

This performance is rated I for immature content

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

ENGINEERING
SOCIETY 'A'

ELECTION

WINTER 2010

The Candidates



Timothy Bandura

President

3A Mechanical Engineering



Anish Bhutani

Vice President, Education

3A Chemical Engineering



Leah Allen

Vice President, External

2A Chemical Engineering



Sean Walsh

Vice President, Internal

2A Mechatronics Engineering



Griff Ferguson

Vice President, Finance

3A Civil Engineering



Marc Tan

Vice President, Finance

3A Civil Engineering



Praveen Arichandran

WEEF Director

2A Computer Engineering



Alexa Baker

WEEF Director

3A Civil Engineering

CANDIDATE PROFILES

President Candidate

Timothy Bandura

3A Mechanical Engineering



Hello!

My name is Tim Bandura, and I want to be YOUR President. I'd like to bring a lot of ideas to the table and, with your help, shape this Society. But if we're going to work together, then I guess it's only polite to start with introductions.

I am enrolled in Mechanical Engineering, and I'm over half way through my 3A term.

I was born and raised in Kitchener, and only downtown could be possibly considered a bit sketchy. The rest is really nice! Honest!

Here's what I want to do that's NEW as President:

I want our Society to have long term goals and strategic planning. We're always concerned about the hill ahead and never what's beyond it. If the Faculty can have a Sixth Decade Plan, why can't we have a Six Year Plan?

I want to enhance media relations and build stronger ties to our surrounding communities. We are not necessarily always the favourites of our campus or community, but that's because we don't tell people enough about how much good we do! Engineering has a great tradition of running incredible charity efforts, amazing outreach programs, and showing amazing leadership! We need to broadcast our efforts. Why not invite the Mayor of Waterloo to help us pull a bus? Why not write to *The Record* about the thousands of dollars we raise for charity?

I have a vision to create an Engineering So-

ciety that is centered on equity among members. We brought in a new event at Molly Bloom's centered on hockey, and we brought out a new crowd of people! I'd like to expand this out to other interests! I have a vision to create an Engineering Society that is built and maintained by the hundreds of role models and leaders of our community that we are comprised of. We are diverse in our interests and activities, and the Engineering Society should represent that.

In addition to this, I will also work hard to ensure:

That I fairly represent you to the Faculty and the greater community. If you have concerns, bring them to me! Same with comments or questions!

That the rest of my executive team provides you, the students, with the best of our efforts and to ensure that we are all held accountable.

Of course by now you know what I want to do, but you may wonder what qualifies me to be the President and take lead? Here's just a

little snap shot of what I can bring:

I've been a director for many different events. From being your representative on B-soc as Off-Stream Rep, to planning Genius Bowl, to organizing Enginuity, to running Frosh Mentoring and many more!

I am currently your Vice President Internal! I've brought in new director appreciation initiatives. I've also worked with other students to create new events such as our successful partnership with Molly Bloom's.

I've been a Big (2008, Light Blue) and a Huge (2009, Dark Purple) for Orientation Week before.

I've been involved in our Engineering Society since 1B, and I've seen a lot. I've been to conferences as a delegate of our school and I've learned what works for other schools and what doesn't.

Here's what I'd like to bring. Let me know what you think! Please come out and ask questions not only to me, but to all of the candidates! Get informed and make a decision! This is your Society!

Vice-President, Education Candidate

Anish Bhutani

3A Chemical Engineering



Howdy fellow plumbers,

I want to be your Vice President Education. I plan to show you that I have the experience and the passion to hold this position and I will make sure that you as students are getting the most out of your

education. EngSoc has a big role when representing the student body in department and faculty settings, and I want to be part of your academic success.

First off, I love EngSoc. I grew up in Fredericton, New Brunswick, and did not know anyone when I came to Waterloo. I immediately got involved with my class, becoming the Academic Rep and EngSoc Rep. Since then, I have held a few directorships with EngSoc, including the Academic Rep Advisor three times (twice on A-Soc and once on B-Soc, working with both sets of VP EDs) and EOT Video director twice, both of which require a lot of dedication throughout the term. Finally, I have been a Frosh Big twice (Dark Blue in '08, Red in '09), and will be the Video Guru for the 2010 Frosh Week.

The first point of my platform is the continued work of empowering academic reps

in the classroom. Having been an Academic Rep Advisor for both A-Soc and B-Soc, I have a lot of experience working with first and second year Reps to make sure that they are aware of what is happening academically and helping them approach their professors so that they can get the best out of their education. I want to continue to work with them so that the outcomes of surveys such as Course Critiques and Debt Load Surveys can be greatly improved (last Spring, less than 30% of students filled out Debt Load Surveys, and I want to see that improve).

My second goal is to make the position of VP Education more accountable and transparent. As VP Ed, I would be representing your opinions to the Faculty, the undergraduate senate, and other student services. I want to make sure that every student knows the decisions I make so that

rather than having to take it on faith that I am representing your best interest, you will know what I am doing and can help me help you.

Finally, I have enjoyed how the PDEng Renewal Process has taken student input at every step, and as your VP Education, I want to work to make that the process for all academic initiatives at the university. I believe that student opinion should be the most important aspect when making a decision for students and I want to do everything I can to make sure that your opinion is heard.

To conclude, I have dedicated a lot of time towards the Engineering Society. I believe I can meet the challenges that will be faced over the coming terms, and I hope you let me, Anish Bhutani, represent you as your VP Education.

Vice-President, External Candidate

Leah Allen

2A Chemical Engineering



Hello UW Engineers,

My name is Leah Allen and I am running in this coming election to hopefully become the next Vice President External. A little bit about myself. I am currently in 2A Chemical and have been an active member of the Engineering Society for the past three terms. It's not hard to see that the members involved in Waterloo's Engineering Society are the most hardwork-

ing, dedicated, loving people you will ever meet, and that's what got me interested in the Society.

So what qualifies me to be your next VP-Ex? I have been my class representative for the Engineering Society since day 1. I've attended meetings regularly, kept the class informed on upcoming events and organized class t-shirts and events. I have also been a Big for Frosh Week (Dark Blue, All for one and one for all!) and I have the privilege of becoming a Huge this year as well as being the director for the Amazing Race event. Also, I am currently on the organization committee for the FIRST Robotics Waterloo Regional, where over 500 secondary students compete with robots which they have built over six weeks!

Early on in high school I knew I wanted to study engineering at this University, mainly for academic reasons. What I didn't know then was that this engineering student body wasn't just a group of smart engineers but also people who want to give back to the community and have fun. This

is the main reason why I would like to be the next VP Ex. I would love to represent this amazing student body to the rest of the university and to other engineering faculties, provincially and nationally.

To help represent Waterloo Engineering to the rest of the university, I plan on developing a good working relationship with the other student societies and the administration. To represent the engineering student body on the provincial and federal level, I plan on attending all ESSCO and CFES conferences and representing the concerns of the student body. I would also like to increase awareness on issues that are being discussed by the provincial and national societies and would like to get more students involved with these societies.

The Engineering Society supports most of the student teams within engineering. For the bond between the student teams and the Society to remain strong, it is important for the Society to know what is going on with the teams. Therefore, I will keep the Society informed on how the student teams

are progressing and will report to the Society on their successes at the competitions.

On the topic of charities, I feel that the charities should keep going in the same direction. The current charities that are being held by the Engineering Society are a great way to give back to the community. I intend to keep the charities that have previously been held and to increase awareness of all future charities to hopefully get more involvement from the student body. Also I would like to broadcast our efforts to the rest of the University and the community by advertising how much money engineering raises.

Lastly, I plan on being approachable with any concerns that you may have. I plan on being a liaison between our Society and any other societies and I plan on helping students that would like to get more involved. I am really excited for this opportunity to make the next 16 months amazing! If you have any questions, please do not hesitate to ask me! Happy voting!

Vice-President, Internal Candidate

Sean Walsh

2A Mechatronics Engineering



Well hello there UW Engineering!

It is very nice to see you here in the Engineering Society Elections section of the *Iron Warrior*. And reading my section? I'm flattered!

So let me start by introducing myself; my name is Sean Walsh, I'm in 2A Mechatronics, and I am running for the posi-

tion of Vice President Internal. Currently I am a director for Athletics, Music, and Shadow Day as well as my class WEEF Rep. Some of you might already know me through one of the many engineering events or possibly we have met in the Engineering Office. However, it's more likely that I haven't met you at all, which means you are probably wondering why I should be your future VP Internal, right?

Right! So here I go.

I am very involved in the Engineering Society and I attend the meetings regularly, despite the fact that I am not a representative in any way. I have been an Orientation leader as a Big for the Yellow team in 2009 and will be a Huge in the upcoming Frosh Week next fall. As I had mentioned before, I am currently co-running three directorships for the Engineering Society and through these directorships I see turn-out rates which are great, but could be better.

This idea of getting more engineers out to events is nothing new to the position of Vice President Internal; nevertheless I feel that I have some strong plans for achieving this goal, starting with researching attendance for past events and competitions. Following this I would like to continue to look more specifically into what current events gain the most interest by recording turnout rates, or waitlist lengths in the cases of events which have limited availability.

Another focus of my campaign will be on the engineering student population by asking for opinions and listening to concerns. I hope to start weekly or bi-weekly polls on different topics regarding the Engineering Society and its events; followed by a response to the results to either resolve a potential issue or describe how I plan to act. Along with the polls as a new addition, there are some new or often overlooked events such as large

showings of sports events or video game nights that I intend to implement. I hope that these ideas and more will be able to draw in more engineers who may not be as interested in the current events being held.

The purpose of my intended goals is to set up for modifications in the long run. Many of my ideas would lay the ground work in the fall to rethink events and details for the spring term, while still acting on any opportunities that can be focused on earlier. As well I would hope that with my continued recording of more or less desired events, sometime in the future the Society can find the perfect balance of activities and events to get as many students participating as possible.

I am more than happy to answer any questions you may have, and thank you again for your interest in these elections!

Vice President, Finance Candidates

Griff Ferguson

3A Civil Engineering

Hello fellow A-Socers!

My name is Griff Ferguson and I am running for Vice President Finance in the upcoming Engineering Society A Executive elections. I am excited for this opportunity to contribute what I can to the society as VP-F, should I win the candidacy. First, I will tell you a little bit about myself then I will tell you why I believe I would make a good VPF.

So, a little bit about myself to start with. I grew up in a town in central Ontario called Bracebridge. I went to high school in the same town where I pursued interests in playing guitar and outdoor activities like sailing and snowboarding. I like to cook and relax when I have free time. I am posi-

tive, outgoing and friendly. I am also determined and dedicate a lot of time and energy in what I do, whatever the task. I feel these are very strong qualities that I could bring to the Exec position and contribute to the Society as a whole.

I am currently in the 2012 Civil Engineering class after making the transition from 2011 Geological Engineering. I have had experience with both government and private enterprise during my co-op terms. Along the way I have picked up valuable skills that I can apply to the executive position if I win the candidacy. Over my co-op work terms I have gained experience at managing small projects as well budgeting and cost reporting. I have also been an Eng-

Soc director three times over – once for Genius Bowl and twice over for Music. Both directorships require a high degree of coordination among directors and participants. I enjoy working as a member of a team to accomplish tasks, which I believe is essential to working as an Exec. I feel strongly about the work that the Society does in supporting its members and student groups and teams.

I feel that my experience and contributions to the Society have provided me with the skills I need to succeed as VP-F. I look forward to campaigning and feel strongly about my platform. If you have any questions about my platform I am on Facebook, so add me. I can also be reached at my e-mail ad-



dress g2fergus@engmail.uwaterloo.ca. Hope to see you all out at class visits and the Candidate Forum!

3A Civil Engineering

Hi everybody!

My name is Marc Tan and I am running for your A-Soc VP Finance. I am currently in 3A Civil and I'm from Ottawa.

If you didn't know me, I was the poster model for the school's leather jackets and you've probably seen my image on poster boards in the EngSoc office, or in South Campus Hall. Also, you've probably heard someone yelling "Marc Tan's going to Bomber!" in the halls sometimes.

But on to the real stuff:

I can sum up my campaign here really briefly: I'm going to bring more of your \$14.25 to you, as well as work with the other Executive on their initiatives to create a stronger Executive and EngSoc!

My jacket modeling would make me look great at the front of the room at the EngSoc meetings and in the Orifice (the EngSoc office), but it's not what would make a me good VP-F. Here are

some things I have done that would qualify me for this job:

Taleng Director 3X

Music Director 2X

Frost Week Director

Past Frosh Week Huge and Big, and EDCOM this year

On top of all this, I have been involved with EngSoc since my 1B term and I know how events run and how to budget accordingly. However, budgeting, managing novelties, and donations are just the standard portions of the VP-F position, I want to bring more to this position!

My main campaign point is about supporting the other Executives in their initiatives since I control the money, I don't control the events (but I can suggest things as an Exec member).

So here's the campaign:

Work with other Exec to bring more of your EngSoc fees to you, especially for people who don't attend the typical EngSoc events

Selling of Office Supplies from EngSoc

Since we are a non-profit organization, the prices should be cheaper than anywhere on campus giving you access to the school supplies you need right within Engineering, including calculators, graph paper, lab books, pencils, pens, erasers, etc.

Working with other Exec to secure more student space, both study space and lounge space with ideas and proper future budgeting!

Working with other Exec to help and build relations with student teams financially and beyond!

Being fiscally responsible for EngSoc events

Currently a lot of events have bloated budgets that don't benefit the whole Society, just the very few who attend these events.

I hope my campaign has enlightened you about what I want to do with this position. I'm going beyond main-



taining status quo, and I hope you will vote for me online March 13-16. Also, I hope to see you all at TalEng! It will be a grrrrreeeat time! And if you have ANY questions about my campaign or anything, don't hesitate to ask, I'll be glad to have a chat with you about the allocation of fees and I'm always open to new ideas!

WEEF Director, Candidates

Praveen Arichandran

2A Computer Engineering

It's time to take the Waterloo Engineering Endowment Foundation to the next level. Over the last 20 years, WEEF has contributed millions of dollars to student teams, lab equipment, computers, teaching facilities and most recently, one million dollars to the construction of E5. It has an enormous history of contributions but even greater potential. My name is Praveen Arichandran. I'm in 2A Computer Engineering (Joint Honours Economics) and I love WEEF. Today, it's time to make strategic decisions and take on initiatives to grow the endowment fund and make sure that the next 20 years are even more prosperous than the last.

If elected, I plan on putting focus on the following key initiatives and bringing them to fruition during my term.

Employer Contribution Forms/Diversified Funding

The primary source of WEEF funds currently is student donations. In order to begin the process of increased growth, we must diversify sources of funding. I

would like to implement contribution forms that would be distributed with work term evaluations, where employers would have the opportunity to make a donation to WEEF to foster the education of their co-op students. Many companies have charitable budgets and we should capitalize on this.

Create a Campus-Wide Endowment Council

I want to create a UW Endowment Council for all Endowment Directors. WEEF is not alone. We are by far the largest endowment, but there are many other endowment foundations on campus including those from Math, Environment and Grad Studies. This council would form the groundwork for high-impact, inter-faculty projects in order to optimize benefits both within engineering and across campus.

Increased Promotions and Transparency

Many students do not know of the contributions that WEEF has made to UW Engineering. I would like to or-

ganize an extension to the 'WEEF is Good' campaign, raising awareness of the many contributions through an improved website and advertising. I want to implement a perpetually increasing digital endowment counter to reflect our growth. I would also like to provide complete transparency of the WEEF funds beyond the \$85000 that we distribute. More importantly, I will ensure that every class has a committed WEEF Rep on Funding Council. These initiatives will allow us to instill a great sense of WEEF pride throughout our faculty.

Experience

I am currently a WEEF Assistant and have been involved with EngSoc since 1A through various directorships and as a Class Rep. I understand how WEEF works and where it can be improved. I am a Feds Engineering Councilor and have served as the President of the Toronto District School Board's Super-Council, representing 86000 students. I want to use my experience to create a bright future for WEEF.



The multi-billion dollar endowments of MIT and Harvard weren't created overnight. We need to plan today for the future of Waterloo Engineering. It's time to step up the status quo and create something phenomenal. With your support, we can make that happen.

Please join us on Facebook at tinyurl.com/PraveenforWEEF or email me at parichan@uwaterloo.ca with any questions. Happy voting!

WEEF Director Candidates Continued

Alexa Baker

3A Civil Engineering



Hello everyone! My name is Alexa Baker, I am currently in 3A Civil Engineering and will be graduating in 2012. I am excited to be running to be your WEEF Director for the next 16 months. I think that the

Waterloo Engineering Endowment Fund is extremely important to undergraduate engineering students at the University of Waterloo. I want to be the WEEF Director so that I can ensure that WEEF continues to have a positive impact on students.

WEEF affects every undergraduate engineering student in many ways, including supplying equipment for labs and classrooms, and supporting student teams. As WEEF Director I hope to be able to raise awareness of the fund among all students and those in need of funding. I will visit every class at the beginning of the term to make sure that they have a class WEEF representative, and answer questions. During the visit I would also like to encourage the classes to think about their experiences in previous terms and possible equipment that they may need.

It is important that students realize how much WEEF contributes to their education here at UW. I would like to see the website updated and make sure all the links work. The website needs more current information in terms of who the class representatives are and past terms funding. I also think that it is important for each class in a faculty to know how much funding their faculty has received and what they have received funding for. By raising awareness of WEEF's contributions we will hopefully be able to increase participation in WEEF and increase the amount of money in the principal as well as the portion available for funding.

As WEEF Director I would represent all the students in the Faculty of Engineering and be in charge of organizing meetings to determine how the WEEF funding should

be spent each term. I have been a WEEF class representative since I was in 2A and have been a WEEF assistant for the past two terms. I have a good understanding of how WEEF gets things done and the work required of the Director. I have also been very involved in EngSoc since 1A and have done several directorships since 2B including Whiteboard, TalEng, and Engnuity. I have also helped by being a Big and a Huge during Frosh Week, and I have volunteered at events such as Go Eng Girl and Canada Day.

Thank you for your support. Don't forget to vote from March 13th to March 16th. If you have any questions please email me at acbaker@engmail.uwaterloo.ca or feel free to talk to me whenever you see me around campus.

Prove that you give a hoot.....I dare you!

ANONYMOUS

1) 3176 Engineering Undergrads on stream this term.

2) 5 exec positions on the society that represents all 3176 of those undergrads.

The society that represents your interests to the faculty, to the departments....the one that facilitates BOTH the academic and social growth of engineering at UW....the one that runs course critiques, the one that represents you on councils across campus like Senate Undergraduate Council, Co-op

Education Council, etc. etc.)

3) 4 of the 5 exec positions are acclaimed (meaning only one person ran...so they will most likely automatically get the position)

I am on the verge of losing faith in the calibre of pro-active, engaged students that make up Engineering at Waterloo. If we can't even 'scrounge' up a handful of people from 3176 to take leadership roles that will shape the course of our faculty....then **what chance do we have** of having a voice on this campus, of improving ourselves

to serve students better, of 'lobbying' departments, the faculty, and professors for changes we see benefit in....the picture that is forming as we speak suggests **we have no chance at all.**

The 'real world' doesn't evolve for the better. That's not how status-quo works. The only way we evolve in a positive way is when a bunch of people decide to become leaders and work towards something passionately. When they lose sleep for it. When they sweat for it. When they decide that above all else, what they are doing will

make a difference. How are you making your impact?

Since you can't run for any of those 5 exec positions at this time, **I dare you** to find out who is running for them. **I dare you** to get informed. **I dare you** to exercise your class vote to ensure that even if we have uncontested positions, we still have competent people filling those roles. (Uncontested positions can be 'unfilled' if council decides to not ratify the lone running candidate). **I dare you to vote.**

**On March 12-16
cast your vote online
for the EngSoc Elections**

VOTE *Vote*
VOTE *Vote*

Message From The CRO

A-Soc elections are just around the corner and the CRO and Assistant CRO are excited to bring you a fantastic group of students who are poised to be your next EngSoc Executive team. There are more candidates than positions and we will need to ask you, the members of EngSoc to make the decision for us. There are two contested positions this term and we hope that there will be some good campaigning happening in the engineering buildings. Look for posters to know about the uncontested candidates as well as some clues on where to find more information. There is an election forum occurring on Thursday March 11, 2010 in CPH foyer and it will give everyone an opportunity to ask the candidates questions as well as hear a short speech about their platform. The election will happen online between Saturday March 13th and will continue until Tuesday March 16th. Shortly after the voting closes the results will be announced at TalEng which is happening in SCH that evening. Mike and Paul are excited to announce the wonderful people who will make up the new Executive for the next 16 months, so come out to TalEng and see who they will be.

**Campaigning
Started
March 4th**

**Campaigning Ends
March 12th
10pm**

**Voting Ends
March 16th
4:30pm**

**Election Forum
March 11th
11:30am - 1:30pm**

**Voting Starts
March 13th
10am**

**Results
March 16th
TalEng**

VP Finance Report



ERIC COUSINEAU
VP-FINANCE

Wow, where has the term gone? We're already well into March! This has been a very successful term so far, especially given the circumstances. We have lots of stuff coming up this month, make sure you're subscribed to the mailing list so you don't miss out. We received some brand new leather portfolios in Novelties last week, they're very nice so go and check 'em out! Today would have been the first of two days of Novelties sale in the CPH Foyer. I expect this to be very successful with a goal of beating last term's record sales of \$1850 in two days. As always we have the bargain bin down to \$1 t-shirts, as well as other deals that (at the time of writing) have yet to be finalized. Stop by and take a good look at the sale, and who knows what you'll find!

Donations were decided at meeting 4, and we gave away a total of \$4500 (which was budgeted for)! I believe this is a record, which is very exciting of course! I have attached the results to my article. Donations are given away to student groups on campus, with precedence given to groups that represent UW Engineering to the community and the world, as well as groups that have a large membership of engineering students.

MOT had an unusually low attendance, so we are looking into moving back to POETS

for EOT (with the patio open). This would give graduating students a chance to have 'one last OT' in POETS as well as the opportunity to save costs.

We've been doing lots of research on possible future renovations to POETS, but there's nothing to report yet. I'll keep you posted as we get some solid results. In other news there is an EngSoc election currently underway. There are two candidates campaigning this week to be your next VP-F, so I encourage all of you to get informed and vote in the election. May the best candidate win!

Stay Classy A-Soc!

EngSoc A Donations W10	
Total Budgeted: \$3500+1000	
Group Name	Allocated
Gradcomm 2010	500
Eng FOC	500
Clean Snowmobile	300
Waterloo Space Soc	500
Engineers Without Borders	750
Robotics TEAM	250
Iron Warrior	500
WOMBAT	200
UW CFES Reps	300
UWIRE	244.43
EARTH 490 Geo Eng	455.57
TOTAL:	4500

Senator's Report



JAY SHAH
WEEF DIRECTOR

The second Senate meeting of the year occurred on Feb 22nd. A lot of focus in the past little bit has been on budget concerns and updates regarding the creation of the 2010/11 budget. Summarized below are the highlights from this meeting:

1) For 2010/11, hiring 'freeze' will remain in effect, only Mission Critical hiring will be pursued.

2) Looking at a 3 to 3.5% budget cut across the board (some special areas may be exempt from such a cut, such as student services and libraries)

3) For the 09/10 Fiscal year (the one coming to an end this April) we are on track for a \$400 000 University wide deficit. Since we are carrying a ~5 million dollar balance from previous budgets, that deficit will be absorbed without significant adverse impacts. We are doing OK relative to other universi-

ties as seen here:

1. U of Manitoba -> 36 000 000 deficit
2. U of Calgary -> 25 000 000 deficit
3. U of Alberta -> 60 000 000 deficit
4. Queens will be undergoing a 15% cut of all budgets for 3 years

4) One area identified that can have a drastic positive impact on fiscal health is UW's student retention rate. This is defined as the number of students who complete their degrees once admitted to Waterloo. Remarks were made that there a significant number of students in very good academic standing who end up leaving the university, and the reason isn't clear cut or similar for everyone. For every 1% increase in UW's retention rate, we can save 2 to 3 million dollars. A working group has been setup under the guidance of Bruce Mitchell (Associate Provost, Academic Affairs) with collaboration from Associate Deans of the faculties to help identify primary reasons why people leave, and then come up with solutions to address those reasons. President David Johnston commented that Waterloo tends to have a lower retention rate because we often loose students to high performing professional programs like Medical School or Law School. If you have any comments on what the Faculty of Engineering can do to increase its retention rate, send me an email and I'll make sure the information gets passed on.

From the 2010/11 budget perspective, we are waiting for the Provincial Budget to be released, so as to find out what decisions the Ministry of Training, Colleges and Universities has made, and how they will reflect in University grants. Until then, there are a lot of question marks, making the actual budget difficult to put together with any length of detail.

Hope everyone had a great reading week! Good luck on the home stretch of the term :)!

Feel free to email me about anything remotely related to Senate matters, or anything I've written about above at senate@engmail.uwaterloo.ca

WEEF Report



JAY SHAH
WEEF DIRECTOR

WEEF Funding Council met on March 2nd. It was a gruelling 3 hours, and we had to make some tough decisions, but the funding allocation for this term is complete. The attached table outlines the decisions that the Funding Council made. (Note that funding council is comprised of one rep from every engineering class on campus, its **100% students!**)

If you would like to discuss any of the amounts allocated and why the funding council made the decisions they did, I would be more than happy to meet with you or discuss it via email. Please keep in mind that funding council had some very tough decisions to make this term as

a total of \$244 892.20 was requested, and only \$85 000 was available to allocate.

We encourage all recipients of funding to spend their allocations as quickly as possible (while still being prudent) so that an immediate impact can be felt by students today. This is WEEF's version of economic stimulus ;).

WEEF's 20 year celebrations will occur on March 22nd in the CPH Foyer, look out for some fun shenanigans! WEEF's Board of Directors will be meeting soon to finalize the funding decision for this term.

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

Questions, comments or suggestions are always welcome - email me at weef@engmail.uwaterloo.ca

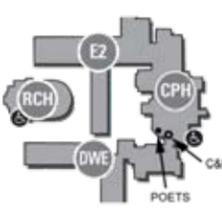
Proposal	Requested	Allocated
Architecture		
Dimension SST 1200es 3D Printer	\$33,400.00	\$6,000.00
GIS Computer And Software	\$3,888.00	\$-
Rotatrim M36 Professional 36"	\$640.00	\$640.00
Large Format Flatbed Scanner	\$4,990.00	\$-
Total	\$42,918.00	\$6,640.00
Chemical Engineering		
Computer Aided Teaching Room Computer Upgrades	\$36,360.27	\$13,100.00
Civil Engineering		
Ysi Sonde Probe	\$10,278.60	\$10,278.60
Swoffer Current Velocity Meter & 3 Wading Rods w/ Rotor	\$3,455.25	\$-
Field Traffic Data Collection Equipment	\$15,045.00	\$-
Traffic Signal Timing Design And Optimization Software	\$2,673.75	\$2,673.75
Contribution For Installation Of New Concrete Mixer	\$8,000.00	\$8,000.00
Instructional Shake Table For Earthquake Engineering	\$19,653.75	\$-
Total	\$59,106.35	\$20,952.35
Geological Engineering		
Geological Engineering Earth 490 Field Trip To Peru	\$2,800.00	\$2,100.00
Systems Design Engineering		
Video Cameras For User Research & Interactive Proto & Test	\$4,000.00	\$2,000.00
Multimedia/Alternate Platform Computer	\$1,499.99	\$1,499.99
Total	\$5,499.99	\$3,499.99
[MISC] Engineering Student Machine Shop**	\$10,000.00	\$5,400.00
Departments Total	\$156,684.61	\$51,692.34
Engineering Student Teams		
Chemical Engineering Student Society Proposal	\$617.00	\$68.00
WERC Contest/4th Year Design #1	\$2,505.00	\$775.00
WERC Contest/4th Year Design #2	\$3,099.43	\$775.00
Engineering Orientation	\$4,057.80	\$2,257.80
UWAFT	\$1,731.77	\$1,731.77
WARG	\$4,350.00	\$2,200.00
UWIRE	\$7,490.52	\$1,884.70
UW2TT	\$1,770.00	\$1,170.00
IEEE	\$3,222.00	\$1,530.00
ARMD	\$1,730.25	\$616.70
UMAV	\$4,450.00	\$2,700.00
UWRT	\$3,357.75	\$2,647.85
Clean Snowmobile	\$29,000.00	\$4,000.00
Rover	\$4,200.00	\$2,000.00
iGEM	\$1,500.00	\$400.00
Solar Car	\$3,500.00	\$2,000.00
Rocketry***	\$3,900.00	\$1,400.00
WOMBAT	\$884.99	\$884.99
Nanorobotics	\$700.00	\$450.00
Iron Warrior	\$840.37	\$840.37
Waterloo FSAE	\$5,300.00	\$3,000.00
Student Teams Total	\$88,206.88	\$33,332.18
Grand Total	\$244,891.49	\$85,024.52

Must be matched by Faculty Funding, *No Computer Purchases

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!



ENGINEERING SOCIETY



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

POINT VS. COUNTERPOINT

POINT

COUNTERPOINT

Should The Media Feature Athletes Promoting Fast Food?

WU XIAOYU
2A ELECTRICAL

To justify the consumption of various popular fast foods now available on the market is an impossible task. It is well known, and from a multitude of nutritionists no less, that a diet substantially consisting of fast foods is not good for the body. Most of us are quick to refer to the popular documentaries *Supersize Me* and later on, *Fast Food Nation*, as an indication of the negative effects of a society addicted to fast foods.

So why would anyone agree to have sports celebrities endorse fast foods? The impacts of their endorsements are several fold, and if the situation is as it is, a concerted effort for change can occur in a manner which can be at least in some ways beneficial to society.

First and foremost, we need to see the fact that big sporting events are costly affairs, and if we want to continue enjoying watching them, we must expect that there is someone there to pay the running costs.

From a corporate sponsorship perspective, fast food companies are the perfect organizations to pay for such events: they offer a product that is relevant to the audiences' lifestyles and they can spare the financial capital to actually subsidize a large part of the running costs. It is important to note that the size of sponsors is important; the larger they are, the easier it is to obtain a significant portion of the required capital from them, hence less effort. If we are to continue the current lifestyle that we choose to engage in, the fact that fast food corporations become the sponsors for sporting events is simply a natural progression.

An interesting point to note is that these endorsement opportunities actually offer the opponents of fast foods' pervasiveness more material to utilize in their efforts to change the impact of fast food on society. It is clear that there has not been a single voice in the many conversations regarding this issue that actually agrees with full

justifications of sportsmen endorsing unhealthy foods (other than that it's healthy on the athletes' wallets and keeps the sports they are playing on TV broadcasts). As long as someone chooses to see beyond the television screen and gets on the internet, or even just reads in general, chances are the vast majority of the commentary out there is against the consistent consumption of fast foods if one is to maintain a healthy lifestyle. In this view, the fact that the franchise at hand chose to increase its presence at a time when people are increasingly aware and conscious of the negative health impacts of fast food simply serves to invite the wrong kind of controversy, and serves little more than to further tarnish their corporate image as a result.

We still must remember that fast foods

Fast food companies are the perfect organizations to pay for such events: they offer a product that is relevant to the audiences' lifestyles and they can spare the financial capital to subsidize the running costs.

are a product which are just like any other product or service, and that their continued proliferation are in many ways reliant on the attitudes of the consumers. Take Michael Phelps, for example, the fact that his energy expenditure is extremely high or the fact that he, like many other athletes, has detailed diet plans, is rarely considered when opponents of fast foods take part in the discussion. If indeed they are the role models we so fear our children will emulate, wouldn't the details of their lifestyle, aimed at maximizing their body performance, too be copied by our children? Unless, of course, they are not really role models, but are just like any other attention-grabbing character on television, like Spongebob, or Glenn Beck. Consequently, the "role model" concern should focus on the parents who are allowing their children to copy what they see. And that has little to do with either the fast food franchises or the sports celebrities endorsing them.

Hence, it follows that if we are to maintain our current lifestyle, we have to agree with the fact that sports personalities are endorsing fast foods. Improving the health of a nation comes from a fundamental shift in our mindset; improvements are not likely unless there are widespread efforts in changing the psyche of the people.

ROY LEE
1B NANOTECHNOLOGY

You know that cute commercial with Patrick Chan, signing the autograph for the little girl and she asks him to make it out to his mom. It is really heart warming and makes you feel all warm and fuzzy inside. But wait. Something is wrong here... It isn't the fact that McDonald's is selling stainless steel Olympic bottles. Maybe it is the fact that there's a kid carrying around an uncapped sharpie around (if you are wondering, yes I did watch this video five times to catch something like that), I mean where did she get it from? Who carries around a sharpie when they go to McDonald's? I guess since Patrick Chan can be found at one it might be useful to have one when you go...

Wait Patrick Chan and McDonald's... An Olympian and a fast food restaurant... What?

As one of my friends pointed out to me recently, what would have Patrick Chan's nutritionist thought when he saw the commercial? It might go something like "NO!!! Not the McChicken burger!" or "YES! That means I get paid!" Don't get me wrong, I think it is great that McDonald's was the official restaurant of the Olympics and that they supported our athletes. However I find it just a tiny bit misleading and it should be taken with a grain of salt and a whole lot of extra analysis. An Olympian would not eat at McDonald's. Remember the movie *Supersize Me* - it was quite shocking. The guy, who was 6'2" and 184 pounds, gained 24 pounds and consumed an average of 5000 kcal of energy a day. The suggested average intake for an adult male that size is 2300 kcal, meaning he consumed more than double the suggested amount. The situations are not really comparable, but when you are an athlete on the world stage and every last second counts, your nutritionist isn't going to support you going out for a Big Mac and you aren't going to risk your medal hopes and four years of training to go eat a McDonald's meal.

Another thing is that these people are role models for the children in our society today.

We should realize that maybe Patrick Chan is not really eating a Big Mac and he is just looking for support for his training and coaching staff.

They are leaders in their respective sports and they should consider the effect of their words and actions on the society seriously. They should look for funding from companies and corporations that promote good health or even something that is neutral, not a fast food chain. This is a bad example for the children. They are promoting the image that we can consume fast food and still compete on the world stage. We as a society are hounded with media that we brush off and often ignore. Some people didn't even realize the irony that goes with McDonald's supporting athletes. This information is being filtered into our minds and we subconsciously crave the Big Mac and associate it with the image of Patrick Chan signing an autograph.

Now, I fully support our athletes and McDonald's helping them out.

The problem is the lack of critical thinking present in our society. Children often don't realize that yes, this person is shown eating McDonald's for this commercial, but he is probably doing it so for the money. Kids would also have to realize that the athlete's nutritionist and coach

would lecture him if he actually ended up eating that burger, but are mighty glad that they will get paid. We as young adults are capable of thinking about this issue and realizing that maybe Patrick Chan is not really eating a Big Mac and he is just looking for support for his training and coaching staff. But in reality, when I see the commercial I don't think of these things, I think of the fact that I love the Olympics and that it is an awesome competition that brings countries together and displays what everyone has to offer. Sometimes I think mmm... the burger that Patrick Chan is holding looks delicious, now I want one too, which is totally not what I would associate with any Olympic athlete (except maybe Usain Bolt), but nonetheless after talking about McDonald's so much I think I am going to go to V1 and get myself a spicy fried chicken wrap and confuse my brain about how if I went all the way to a McDonald's to get my fix of fried chicken a bit of my money would go to supporting our athletes at the Olympics.

IW

RECOMMENDS

Website

<http://www.sporcle.com/>AMRITA YASIN
3B CHEMICAL

If you are tired of the traditional time killing websites such as YouTube and Facebook and are looking for something that gives you the necessary break from studying but also keeps your neurons active, www.sporcle.com is for you. As a "mentally stimulating website", it has something for everyone. You can test your knowledge of almost anything, music, science, myths, entertainment, history, sports etc, by taking short quizzes. It also has some interesting brain teasers and games under categories of memory, focus, attention which are primarily aimed towards gauging and improving mental activity. So next time you need a break from your calculus assignment try refreshing your brain by testing your knowledge of something that you are passionate about.

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LISA TONG
3B CHEMICAL

For the Women: Weights = Buffing up? I don't think so

A lot of women avoid lifting weights mainly due to the fear of bulking up and losing their femininity. Trust me; I had the same fear when I started working out and here's the low down: the average women does not have enough testosterone to actually build this muscle. Female body builders take supplements and special nutritional diets to achieve their body type. All body types are different and yes, some women will build more muscles than others, but that is due to their genetics. I would put all those worries aside and focus on getting fit instead.

Any type of piece of equipment in a gym uses terms like sets and repetitions. A set is a group of repetitions for an exercise while a repetition is redoing a motion. When using weights, you should aim to do 3 sets of 12-15 reps. Choosing the right weight allows you to fail a rep after 15. It will take you a bit of trial and error to find the perfect size. As soon as the weights start becoming easier, you should continually increase your weight to challenge your body—and this is where you start seeing improvements.

Workouts that you can do in your own room!

Since midterms have passed (I hope), you can now get back into shape from hermiting in your room all term! I've composed a list of exercises that you can do easily without the need for any special equipment.

Abs

Crunches: Lie flat on your back with your knees up and feet on the ground in a comfortable position. Place your hands in an 'X' position over your chest or under your head. Focus your eyes on a spot on the ceiling or wall, lift your shoulders (not head!), pull yourself forward, and breathe out. Slowly lower yourself back on the ground and repeat.

Planks: Lie on your stomach and put your arms directly underneath your shoulders.

Push yourself up, creating a 90 degree angle between your forearm and upper arm. Remember to tighten your stomach while you are doing this. Hold it for as long as you can.

Side Planks: Lying on one side, put your lower arm beneath your body making sure that the elbow is directly under your shoulder and lift yourself up. Your other arm should be on your hip and your head should be aligned with your body.

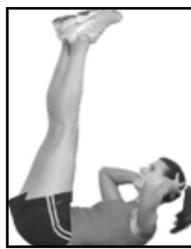


Hold this for as long as you can.

Lower Abs: Lying on your back again, lift up your legs together. Start from having your legs in a lower position and start raising your legs towards your head. As soon as your legs are directly above your hips, raise your hips up. Breathe out and repeat.

Chest

Push ups: Going down on all fours, place your arms to be slightly wider and in line with your shoulders. Straighten your legs and keep your feet close together. Your head, back and legs should form a straight line. Lower your body until your chest nearly



touches the floor and your elbows should be bent at a 45 degree angle. Raise yourself back up to the starting position.

Legs

Squats: Standing straight, put your arms out in front of you at shoulder level and feet a width apart, lower your body by bending your knees and pushing your hips back until the top of your thighs are parallel to the floor. Lift yourself back up to starting position.

Lunges: Place one leg in front and the other back, about 2 to 3 feet apart. Keeping your back straight, lower your body by bending your knees. Your rear knee should be very close to touching the ground. Then push your knee back up to the starting position.

Calves: Using a wall, place your hands in front of you, touching the wall. Raise your body by going on your tip toes. Lower yourself.

So University Students Can't Read or Write Anymore...

KATE HEYMANS
1B CHEMICAL

We've all heard it before; apparently the level of literacy of high school students entering university is going down to a disgracefully low level.

This year about a third of the students that took the dreaded ELPE failed. That's right, one out of every three students. The most common excuse is usually that the level of English taught in high schools is no longer high enough or that "MSN Messenger" and other forms of informal written communication are to blame for the invention of acronyms.

More important than spreading the blame however is to find out what is done to remedy students' English once we are in university. Speaking from personal experience I'd say that my level of written communication certainly has not improved since I got to UW. I would even go as far as to say that it's gotten worse. Why? I have not written a single extended piece of writing (other than for the IW) since I graduated from high school that was evaluated based on grammar or spelling.

I'm prepared to guess that if I tried writing such a piece, it would probably contain a lot of pathetic mistakes and a terrible overall structure. I'm certainly not volunteering to write term papers and let them be covered in little red circles, but I'd really appreciate having someone draw a bit of attention to the blatant mistakes I make in my lab reports so that I don't make the same mistakes when I'm on a work term. Perfect paragraph structure (with an opening statement and etc.) isn't essential for engineering students, but constructing a logical and easy to follow argument is. And as much as I like taking advantage

of the fact that I speak and write better English than many of the TAs marking my work, I would still like having someone who could notice my mistakes and point them out to me from time to time.

The other reason I believe my writing has gotten worse is because of the many mistakes I notice in my notes. As I make my notes, I don't always pay attention to what I'm copying down, and as a result, they are covered in terrible spellings of all sorts. The worst part is these mistakes become a habit; I now have to check if definitely, definately, definately or definitily is the right spelling for a word that I use on a regular basis.

I wouldn't go so far as to blame my professors for my own grammatical and spelling weaknesses, but it would probably be safe to say that if some of our professors had to write the ELPE, they'd fail. A combination of sketchy handwriting (is that an 8 or an E?) and terrible spelling might even make it impossible for the markers to comprehend the essays.

While cultural diversity amongst the teaching body here at Waterloo is amazing, it also means that students' level of written and oral communication has gotten so low that even some employers are complaining.

Criticizing the level of writing displayed by students is universal; it was already a contentious issue when our grandparents were our age and is an equally debated problem in the francophone world. Since it is a long, boring issue, it is safe to say that if I continue to spell stuff wrong it won't start a nuclear war (I might even be like Shakespeare and invent new words) but it probably would disturb you lovely readers if I started writing lieke dis.

profQuotes

"I always look for schools who are worse than us"

- A. Sedra, Dean of Engineering

"Are we still friends after the midterm?"

- O. Basir, ECE 223

"You were not in class yesterday. See I remember. I am like a flip-flop"

- O. Basir, ECE 223

"Every time an issue of Iron Warrior comes out, I check the prof quotes to see if this is going to be my last day of employment."

- Duan, ME 653

"Never trust a prof...never-ever-ever"

- M. Fowler, CHE 331

"That's what my research is on so we will be spending more time on this"

- B. Epling, CHE 311

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Future of Gaming - Gaming Strikes Back!!!



JON MARTIN
OBI JON1138

Many gamers look back with nostalgic memories of the game systems they once had, the games they once played, and the time when they first got hooked into the hobby. I remember playing Sega Genesis in my basement and at friends' houses – games like Jurassic Park, Sonic the Hedgehog, and Batman. Then many people go through a stage of gaming withdrawal, let's call it the Dark Ages – it was sad, boring, except without all of the great jousting. Then everyone rediscovers the hobby, through a friend, wandering into a store, or pulling their dusty old systems out of the closet. Personally I started playing PC games again, and then moved to consoles when I got tired of not being able to play a new game without having to buy a new graphics card. On a side note, there is an interesting system that my dad owns which very few people have ever heard of, the Intellivision. As a true collector, he has the system, the voice synthesizer, the key-

board, the Intellivision II, and almost every game made for the system – of course I haven't seen any of it out of their boxes in years. When you see "The Empire Strikes Back" on Intellivision it definitely makes you thankful for the graphical leap in the last few console generations. Flying your Rebel snowspeeder (the orange triangle) across the wastelands of Hoth to fight the attacking AT-AT (the grey rectangle) really shows how much video game graphics have advanced.

Last issue I talked about the story in a videogame, the thing that captivates you and drives you through the game. I purposely talked about that first – well that's a lie, I normally write these articles the night they are due, so I write about the first thing I think of, but it worked out well anyway – because I believe that no amount of amazing graphics will ever make me play a game with a horrible story. If the game can't keep me interested, doesn't make me want to explore, find the next hidden secret, defeat the next villain, then what is the point. A game without a story is like a Ferrari without an engine, it looks great, but does that really matter when you can't drive it? Of course, there are some excep-

tions; whole genres are based around the action and game play, without any need of a story. Things like fighting games come to mind – they are about the action, the story is just window dressing.

But, back to graphics. Pick up a game made in the late 90's early 2000's and you will truly be amazed at the evolution in graphics. Things like plants have gone from flat images to entire fields of grass, with each blade's path calculated as it blows in the simulated wind. Character models have gone from freaky alien looking things, with about four polygons per face, to amazingly detailed high definition people, with fully detailed clothing and millions of polygons to accentuate every facial feature. It is a lot of fun to rediscover, or discover for the first time, some of these old games. That brings me to the subject of abandonware, a great find for anyone who wants free stuff without DRM – which is pretty much everybody in the world. Named along the same standards as hardware, software, and firmware, abandonware refers to software and other products which a company has stopped supporting and released to the public. Many abandonware products are outdated software and games which the

company no longer cares to maintain the copyright on, as a result they are free to download and play. A word of warning, many old games were designed to run on DOS, so you will need an emulator like DOSBox, and a bit of code to get them started. Though sometimes even that small nuisance can be avoided, as it seems some developers have realized that people are still interested in their classic games. Some of these developers have created the code necessary to run the programs on XP and Vista – in many cases if it works on Vista it will work on Windows 7. Also, if you have any of the old disks lying around try reinstalling the game, Age of Empires 2 failed horribly on my PC when it was running Vista, but runs perfectly now that I am running Windows 7, so try it out.

So, this is my spiel for this issue – remember the games that got you interested in this hobby, that graphics are great and will keep progressing, but that they are not the most important thing in a game. Do some searches online for abandonware and you will be amazed at some of the amazing games that are still out there, with amazing stories and characters waiting to be rediscovered. Keep on Gaming.

Review Based On The Trailer: Hot Tub Time Machine



JON RADICE
3B CHEMICAL

Oh, the life of a Hollywood movie exec, how I've wanted to know how they pull it off. The life of these hot-shot millionaires must be incredibly stressful. I can imagine the pitch for this movie was the last one the Exec did, before he voluntarily checked himself in to a psych ward. After reading one too many World War Two docudrama, and nearly pulling his hair out after going through another rewrite of Saw XXX, the poor guy must have snapped. He probably thought he was having another hallucination when the secretary came into the room with the announcement.

"Sir, your 2 o'clock sit down with Jon Cusack on that new movie he's producing is ready to go." The secretary reveals Mr. Cusack with some no name director. Jon personally hands him the script, a big, dumb smirk on his face. He reads the title.

"Jon, you can't be serious?"

Cusack nods.

The Exec cries. The tears turn into a mad cackle. He throws down the script.

"A hot tub, and it travels back in time? FAST TRACK THIS!" The Exec is never heard from again.

Yes, the concept is a stupid one. But looking at the trailer, it actually looks pretty good. First off, they made the wise choice of going with mostly older men. Accompanying Cusack through this fun romp back to 1986 are Rob Corddry, formerly on the Daily Show, Craig Robin-

son, who plays Darryl from the Office, and Clark Duke from Greek. The gist of the movie is as follows. Three friends, and one of the friends' dorky nephew decide to spend an otherwise listless weekend at the ski hill where they shared some of the best times of their youth. After sneaking into a private suite, they party in the hot tub and, surprise, surprise, it takes them back to a festival in 1986, the same winter carnival they attended. The dorky nephew tries to think of a way back while the other three try to make up with the women they ended up hurting in that carnival. While a semi-boring sounding plot, the quality of actors really helps. Add to the mix Crispin Glover, and Chevy Chase and this makes sure that there is the promise of hilarity from these usually funny people. Bonus is that it won't end up with as much of a stupid

sex romp that it would have been if it were filled with no-name teen actors; more of a tasteful sex romp. And with the R rating, you know that there is going to be a lot of blow in this movie; as would any ski hill in the mid eighties.

Another plus I see from this movie is the fact that they are self aware that the movie premise is incredibly ridiculous. But that could also be the movie's downfall if it relies too heavily on the fact that it's a stupid premise to squeeze laughs out of the audience. But I have some faith that this won't be so bad. I would put it on par with The Hangover in terms of style and amount of comedy, but I keep forgetting that people go absolutely loony for that movie. A hint above mediocre, but enjoyable to say the least. Hot Tub Time Machine will be making a splash March 19th.

The Fashion Files



AMANDA LEDUC
3A MANAGEMENT

As seen in my previous articles, engineering certainly does have a sense of fashion. Sometimes trendy, sometimes marching to the beat of their own fashionable drum, the students of engineering tend to make a statement with their wardrobe selection. This week's Fashion Files will profile a few fashionable, yet completely different styles of dress.

Sasha - Functional

There is no doubt that Sasha has his own unique yet functional style. His

wardrobe is so functional in fact, that he has three sets of the blue shirt seen in this photo. So how does he pick which blue shirt to wear on a given day? Well, each shirt has a specific function and shirts are demoted to lesser functions as they age. For instance, a new blue shirt would be for "going out" but could be demoted to a "day to day" shirt as it ages. The most interesting part of the Sasha's wardrobe however is his use of the pockets. In his pockets, you are likely to find many keys, pens, his passport, a calculator, a chalk holder, a couple of wallets, possibly a thermometer and of course his blackberry. Sasha's look is both distinctive and incredibly well-designed.

Michelle - Put Together

Michelle looks so incredibly put together in this outfit. The red and silver glitter on her shirt is matched perfectly to the red scarf with silver glitter details around her neck. Finally, the shiny silver earrings top off this outfit and pull the entire look together. The knee high boots over top of her jeans also add an extra element of flair and fashion. My favourite part of this outfit is definitely the scarf! It's such a simple ac-

cessory but is what makes this outfit stand out as being incredibly fashionable and unparalleled.

Dave - Vintage

Dave's look in this outfit screams vintage. He pairs a timeless vintage t-shirt with an ever fashionable engineering leather jacket and well fitting jeans. The most interesting part of this outfit is that the t-shirt is legitimately vintage. In fact Dave informs me that he bought this t-shirt

about 10 years ago. Unfortunately, most of us were in that awkward pre-teen stage 10 years ago and we likely don't fit into those clothes so we really can't pull off such a genuine vintage look like Dave^[1]. If nothing else, this proves that everything old is new again so hold on to your favourite outfits!

Whether you follow the fashion trends from the runways or create your own style, I'd love to see it! Swing by Novelties from 11:30am – 12:20pm on Tuesday or Wednesday and show me that engineering does have style to be featured in the next "Fashion Files" article.

Stay Classy,
Amanda
CFO

^[1]Please don't try to wear your old clothes from when you were 10 to 14 years old, we've all grown since then and that's okay. There is no need to try and squeeze yourself back into those size 25 jeans again and that batman t-shirt from the kids department. If you do, the silent yet ever watchful fashion police will find you.

The Iron Sudoku

ALISON LEE
1B NANOTECHNOLOGY

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



The Brew Man Group - Historic Ales of Scotland



DAN ARMSTRONG
3B MECHANICAL

Loyal Brew Man Group readers, it's time to get excited, as Neil will soon be returning from his adventures in Japan (provided the airport doesn't search his hentai-filled hard drive). Unfortunately he is currently stranded in Thailand (maybe he's just 'visiting'... whatever) and as such, he does not have easy access to anything but Budweiser replicas in bottles whose labels you can't read. So here I am, riding solo, ready to bring you the ever-so critical beer talk on whatever happens to be sitting in my fridge door. Today, that would be the Historic Ales from Scotland mix-pack from the Craigmill Brewery.

It has become fairly common knowledge that beer is a particularly ancient beverage, its roots dating back through Egypt and Mesopotamia, possibly to as early as 9000 BC. It is interesting to note then that hops, the magical flower to which Neil and I give props in each and every issue, did not become common in the brewing process until about the 13th century in Germany. Britain had to wait even longer; hops were not commercially grown there until the 18th century. Instead, these folks used what is referred to as 'gruit', an herbed mixture consisting of... pretty much whatever you had growing in the back woods by your town. The most common herbs included sweet gale (AKA bog myrtle), heather, and mugwort, though berries and spices were popular ingredients as well.

Along with the popularization of craft beer over the past few decades, there has been a

renewed interest in pre-hops beers. To bring some of these ancient flavours to today's beer lovers, brothers Bruce and Scott Williams began brewing herbed ales in 1992, using ingredients growing around the Scottish countryside. In 1998, they developed the Craigmill Brewery, which is now located in Alloa, central Scotland's ancient brewing capitol. It's time to delve into history and have a look at the contents of this (yes, LCBO available) mix pack.

Fraoch Heather Ale (5.0%)

Fraoch is the eldest of the beers in the gift pack, the style reportedly brewed in Scotland since 2000 BC. It includes sweet gale and heather flowers added at multiple points in the brewing process. 'Dry-heathered' beer doesn't quite have the same ring as 'dry-hopped' (a beer with hops added after the boiling process), but doing this should nonetheless impart plenty of the flower's flavour and aroma into the brew.

This one has a spicy and fruity scent. The flavour profile is complex to the point of confusion, but it actually works pretty well. Sweet orchard fruit with touches of citrus, some herbal flavours that I can't really figure out (I guess this is what heather tastes like...?), followed with a dry, grainy finish. I feel like this is the beer that would be made by a Belgian dude who somehow got lost in ancient Scotland, was forced to brew with their local



ingredients, but conveniently had some Belgian yeast in his pocket. Good stuff. [3.5/5]

Grozet Gooseberry and Wheat Ale (5.0%)

Given that 'berry' and 'wheat' are both in the name of this beer, I'm guessing this was the chick beer of 16th century Scotland. It claims to be brewed with lager malt, wheat, bog myrtle, hops, and meadowsweet, then it enters secondary fermentation with a pile of ripe Scottish Gooseberries.

Well after my very first sip, it seems I guessed wrong. Instead of a fruity chick beer, I would compare this one to a pumpkin ale, hold the pumpkin. By this I mean there are tons of spice flavours, though it still combines an interesting fruity tartness from the gooseberries. While not great, nor awful, this is probably the most unique beer in the pack. [2.5/5]

Ebulum Elderberry Black Ale (6.5%)

Aside from the 'berry' suffix, this one has a pretty bad-ass name (come on, 'Ebulum' totally sounds like a black metal band), but the story behind the beer is even more bad-ass. This style was supposedly introduced to Scotland by Welsh druids in the 9th century. This particular recipe claims to be taken from a 16th century record of drinking in the Scottish Highlands.

Wow. These druids apparently knew what they were doing if they could make something like this in the 9th century. Both the aroma

and taste profile are full of roasted coffee-like malts, rounded out by some more weird spices and fruit flavours. This mainly compares to a good coffee porter, but the complexities make it even better, keeping your tongue and mind busy trying to figure out what the hell is in your mouth. I would definitely buy more of this if it were available outside of the mix-pack. [4/5]

Alba Scots Pine Ale (7.5%)

Not only were pine and spruce ales enjoyed by the coolest dudes of all time (the Vikings), but they also possessed some interesting (if hypothetical) properties. They were often taken on sea voyages since they helped to prevent scurvy (which seems legitimate), but they were also said to 'stimulate animal instincts' and result in the conception of twins (eep!). To get the most out of the boreal ingredients, pine twigs are boiled for several hours in the brewing process, then spruce shoots are added briefly before fermentation.

Based on its strength and name, I was expecting this strong ale to bear some resemblance to the modern day IPA, which makes use of various hop strains to achieve some pine-like flavours. A beautiful pour with a big soft head gave me hopes of breathing in the smells of a fresh-cut Christmas tree. Sadly that did not happen. The aroma and flavour are both dominated by tangy caramel malts that remind me of typical (non-ancient) Scotch ales. There is a touch of pine in the background, but it's somewhat underwhelming given the emphasis on the ingredient. Regardless, it's an enjoyable beer that hides its strength very well (a few of these and I'm sure I'd be happy to throw on the man-kilt and rock out to some bagpipes). [3/5]

Props to hops // Dan

The Adventures of Dangerman

Working for More than the Weekend: Spiderman vs. Confucius



DANGERMAN
DANGER '09

Dearest Reader,

To begin with ... "when the will is sincere, the heart is set right."

Confucius said that. At the time, approximately a bloody long time ago^[1], he was talking about how the route to achieving a harmonious society must first begin with a harmonious individual. Indeed, the secret to world peace was inner peace, and the secret to inner peace was that whatever we choose to do, we must seek to do it with our whole heart...

While reading this, I couldn't help but think about how today you're far more likely to hear somebody decry their work rather than embrace it. For a typical person their

job is not defining who they are. It isn't their purpose. It's merely an exchange of a certain portion of time and effort to provide the financial means to pursue their true passions.

Engineers on the other hand, while rarely described as being "typical people," can't be so easily separated from their jobs. Bound by obligation, engineers are inevitably a reflection of their works. To paraphrase that ludicrous definition of "engineering" from that PD Textbook from first-year: we design stuff, we build stuff, we make stuff work, or if it already works we make it work better. We are defined by stuff...literally.

So while it's fair to say that engineers are inextricably linked-to and in part defined by their jobs, more so than the average person, can it also be said that we enter into our work with a greater sincerity? After all, not every job is equal, and while it's pretty easy to pull a Confucius and simply say, "People should

just like what they do, and give all of themselves to it", there are some really unpleasant tasks waiting out there and of varying degrees of importance. To quote a popular exchange from the 1999 film Office Space:

Peter Gibbon: "Our high school guidance counsellor used to ask us what would you do if you had a million dollars and didn't have to work. And invariably, whatever you'd say, that was supposed to be your career..."

Michael Bolton: "...If that quiz worked, there would be no janitors, because no one would clean shit up if they had a million dollars."

Now, the eventual replacement of humans by robots for menial labour tasks aside, as well as the subsequent robot-wars when they decide that they also don't want to clean up after people, there's always someone at the bottom of the totem pole that has to do the work no one else wants to do. Indeed, a lot of coop jobs often feel a lot like sanitation

engineering.

However, maybe there's a dignity in doing the worst tasks. Maybe at the end of the day, engineers are like Spiderman, always doing the right thing even though we suffer for it. After all, knowledge is power, and "with great power, comes great responsibility."

So, whether what waits for you are glamorous works and sweeping accolades, or ones a little more lack-lustre that few will appreciate, know that deep where western glooms are gathering^[2], there's a Dangerman holding up his fist and telling you straight-up, "Wolverines!"^[3]

Sincerely,

Dangerman

Eric.Dangerman@gmail.com

[1] i.e. the 6th Century BCE

[2] Edwin Arlington Robinson "Luke Havergal" 1897

[3] The film Red Dawn from 1984 with the Swayze.

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The Iron Crossword

MICHELLE CROAL
3B CHEMICAL

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		

Famous Movies In Real Life

MICHAEL NEW
3A CIVIL



Clues For The Crossword

Across

- 1. Possessive pronoun for us
- 4. A hissing or whirring sound that comes from speed
- 9. Limited (abbr.)
- 12. Professional, often in sports
- 13. Property of a circle (pl)
- 14. Norwegian band, "Take on Me"
- 15. Eastern Standard Time
- 16. Skillful, or an expert
- 17. A ball or bundle, sometimes of cash
- 18. Spiny desert plants
- 20. Brain damage affecting language ability
- 22. Dined
- 24. KW's most popular sushi restaurant
- 25. State of turmoil, agitated
- 29. Laws or regulations

- 33. In between walk and canter
- 34. His wife was turned into a pillar of salt
- 36. Roman emperor, tyrant
- 37. A large estate, mansion
- 39. Frosh week needs quite a few
- 41. Klutzy, clumsy person
- 43. One, in cards
- 44. German city on the Elbe
- 48. An infatuation
- 52. Gravestone inscription
- 53. Cranky, irritated
- 55. Certified public accountant
- 56. East southeast
- 57. "And after all, you're my Wonder-wall"
- 58. Elizabeth's nickname
- 59. Little, small
- 60. Smacks, with the palm of the hand
- 61. Some, one of

Down

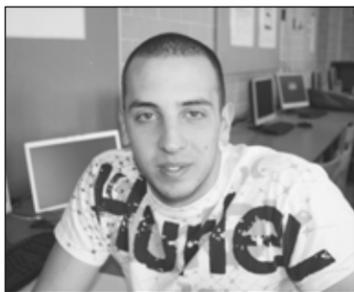
- 1. Organization of Petroleum Exporting Countries
- 2. Latin for bear
- 3. Reserve Officers Training Corps.
- 4. A terrible phantom, eg the Nazgul
- 5. Owned
- 6. Light bulb over your head moment
- 7. Lively, energetic
- 8. Stringed instrument from Austria
- 9. Synonym for 29 across
- 10. Golden Mango in the plaza
- 11. Cultural movement in Switzerland from 1916 onwards
- 19. Inked images, usually permanent
- 21. Into separate pieces, apart
- 23. Giant Moray
- 25. Common abbreviation for steam

- 26. Time period, such as Victorian
- 27. Billion years
- 28. Department of Labour
- 30. Sheltered from the wind
- 31. Make a mistake
- 32. •••—•••
- 35. Oolong, Earl Grey
- 38. Signals with low frequency electromagnetic waves (pl) or making use of
- 42. Savage, wild
- 44. Traced, or a common nickname
- 45. The sun every morning
- 46. Dueling sword
- 47. American civilian space program
- 49. California University
- 50. Revolve
- 51. Foggy
- 54. Gratuity, 10-15%

THE IRON INQUISITION

"What should the candidates do to win the EngSoc Election?"

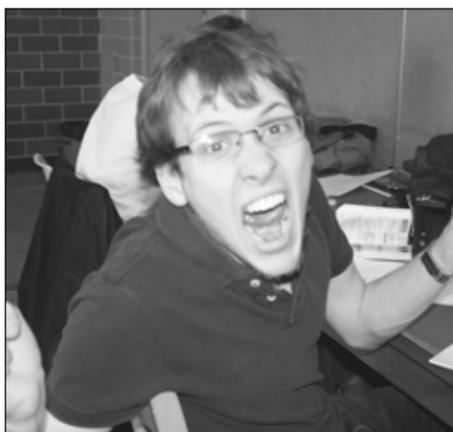
Amrita Yasin, 3B Chemical



Adam Hammoud
3A Civil
"That's harder than the question on my assignment"



Jorge Quan
4B Electrical
"Identify needs of the students, and work towards it"



Stuart Pearson
3A Civil
"Cheat! Backstab! Skulduggery!"

Cat Hay
4B Systems Design
"They should juggle with their hands and feet while doing a head-stand and reading IW"



Ian Jessop
3B Chemical
"I don't know a single one of them"

