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Dangerman Doesn't Disappoint Bigger and Badder, He's Back

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Toronto Engineers Not so Evil at PEO Conference

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Making an Impact

CHECKING OUT THE IMPACT CONFERENCE IN TORONTO

on page 8-9

A Dean of Commitment

Dean Adel Sedra will Serve Another Three Year Term as Dean of Engineering

ALEX GREEN
1A ELECTRICAL

Engineering's own Dean Sedra currently has only one year left in his term as the Dean of Engineering here at Waterloo, yet less than a week ago he discovered that he would serve another three year term at Waterloo, continuing his position as Dean of Engineering.

The announcement that the Dean has

been selected to serve another term was made on October 31st. Many in the student body and faculty were extremely pleased about his reappointment and continued excellent work in the departments. The nomination committee decided that Dean Sedra has been doing an excellent job and renominated him in confidence of his continued good work.

An interesting facet to this situation is that after Dean Sedra's current term is up, there will be a break between when he finishes in 2008 and when he will begin again in July 2009. It is not easy running one of the highest quality faculties of engineering in North America, and the year off may be a welcome change from the stress of being the Dean of Waterloo Engineering. Congratulations go out to the Dean for his continuing employment as head of our faculty

For the 2008-09 year the engineering faculty will have an acting Dean serving as intermediary between Dean Sedra's two terms. Nominations for this position are currently underway, and they hope to have someone selected in the near future. Interest has begun to grow about the acting Dean of the coming year. Many ask who it will be chosen and who are the current candidates for the position. The questions still remain unanswered, but most have confidence in the committee to nominate acceptable choices and to make correct selection. Waterloo engineering will go on without the presence of Dean Sedra in the coming year, and he will be missed until his return in 2009.



The Dean will take a year off from his duties

Alberta Calling

RICHARD HUI
4N CHEMICAL

From October 28th to 31st, Edmonton saw 1,400 academics, industry experts and students converge to discuss pertinent issues in chemical engineering. This year's theme "Resource Stewardship: Imagine Our Future" relates to the immense wealth of natural resources for which Alberta is renown. It is no coincidence that the top 4 sponsors were Canadian Natural Resources Limited, Total E&P, Nova Chemicals and Syncrude. They were also very prominent in the career fairs.

So what's the conference all about? The main events are the 20 to 40 minute technical sessions presented on many research areas such as: bioengineering, process dynamics and control, sustainable operations, and greenhouse gas control technologies and climate change. Most of the presenters were graduate students, professors and industry professionals, yet there was also one process safety talk from an undergraduate.

The conference also included the second Oil Sands Conference, which celebrated the works of Prof. Jacob Masliyah (University of Alberta). He was appointed to the Order of Canada for three decades' worth of scientific advancements in bitumen extraction, fluid

mechanics and heat transfer. As a big influence on undergraduates, his keynote lecture "Growth through Self-Motivated Learning" was a fusion of career progression tips, personal research stories and motivation theories.

For students, seeing contending entries of the SNC-Lavalin Plant Design Competition was encouraging as many of our own fourth-year design projects are highly competitive and technically ambitious. Another highlight was the option to tour industrial sites like Shell's Scotford Upgrader, Gold Bar Wastewater Treatment Plant, AT Plastics and QSV Biologics. If the numbers of tour spots are any indications of student interests or of industry sizes, then oil & gas ranked first with 94 spots, and biopharmaceuticals last with 12.

Next year's event will be held in Ottawa, preliminarily set for October 19th to 22nd. Below, a few of our chemical engineering professors have shared their reflections on the conference.



Why You Should Wait

From the Desk of the Editor-in-Chief



FARAZ SYED
EDITOR-IN-CHIEF

What's so special about The Tool after all? It can't do tricks, I can't watch TV on it and I certainly can't think of a single way it helps me get through engineering. Except for one: it gives me hope. For me and many others, The Tool is a symbol of what awaits us after many long and hard years of late nights, stress and assignments. It will be the capstone to what I consider the best five years of my life.

So I wonder what was running through the minds of those trying to grab at The Tool at the last MOT party. Why did they create such a scene? I sure hope it wasn't because "it could be the experience of a lifetime," be-

cause that's what IRS is for. All they would accomplish would be to ruin the real experience of a lifetime: surviving five years here and being asked to touch The Tool.

Touching The Tool without an Iron Ring isn't an achievement, it's just cheating the system. All of us, especially my friend to the right of this article, look down on it. We feel cheated because someone ruins it for the rest of us - they don't give our effort to get to IRS properly the respect it deserves.

Lastly, it isn't a particularly inspiring feat to touch The Tool. It's easy to outrun The Toolbearers. They wear masks and coveralls, and between them they're lugging a couple hundred pounds of steel. And it's not as if it's a superhuman feat - the act of touching something has to be the easiest thing in the world.

Even in engineering, it's all in the symbolism.

Letters to the Editor

Lack of Jacuzzi Drives Me Crazy

I have only been a student at UW for the past few months, but so far I'm having a great time. However, I can't help but feel that one crucial element is missing from our campus: a Jacuzzi. I believe that the perfect location for this Jacuzzi would be in the middle of RCH on the second floor. You know that round area with the oddly placed pieces of concrete around it under the skylight? It just screams "insert Jacuzzi here!" I have mentioned this to a friend of mine, who has told me that the NEAC is the organization to contact about this. However, I have also heard that they don't really exist so I decided to write to *The Iron Warrior* with the hopes that my dream would fall into the right hands. Please NEAC, I'm begging you to put a Jacuzzi in RCH. Think about it: it would be the perfect place for stressed out students to unwind between lectures.

Sincerely,
A concerned Artsie

Sick and Tired of Plaza Food

It has been four long and grueling years here in Waterloo. As classes near an end, I can't help but reflect on my experiences here. Being a bit of a glutton, my thoughts meander towards the food that I've eaten here.

Naturally, being the closest to University, the plaza is the default location to go for food. After my introspection, I realize that the plaza is absolutely horrid for food. For the past few weeks, I've been working on my fourth year design project with my group members in the fourth year study room for consecutive 15 hour study and work days. Being too tired to make food after all that effort, we usually go out to get some food. On too many occasions, we would spend 20 minutes arguing about which restaurant we didn't want to go to least. Campus Pizza, Harvey's, Phatcat, Mikey's, Subway? No, No, No, No, and No. The fact of the matter is, after four years here, I'm sick and tired of the same foods over and over again. For most things on the plaza, four of the five P's of marketing are missing and will never be found. Price is bad, product is bad, promotion is

nonexistent, packaging (or service in the case of restaurants) is lacking. The only reason I would ever go to the plaza again is place.

My worst recent experience has been with Ariana, aka Crispy Fried Chicken. This is just another attempt by the gyro-nazi of PhatCat to steal money from poor students. I walked in with three of my friends and we should have suspected something when we saw flies by the window seating. When we ordered, my friend was overcharged by the lady working there. When my friend went to confront her, the PhatCat owner, who was just checking in, replied, "She just started, give her a break!" Why should she NOT be confronted when she overcharged? Should we all let people rip us off just because they "just started"? The food was no better. I ordered the student special (two pieces of fried chicken) with an extra dollar for fries. The chicken was old (sitting out for who-knows how long), flavourless, and nauseating. It really doesn't take a very long time to deep fry a few pieces of chicken. It really doesn't take a whole lot of effort to throw in some salt and pepper, a little bit of cumin, a touch of allspice, or a pinch of curry powder into the batter. And for goodness sakes, I do NOT want to eat something fried in old oil! It tastes disgusting and makes me want to give them back their food on its way out of my stomach. Also, that extra dollar I spent endowed me with less fries than I can count of my fingers and toes. Needless to say, one more restaurant was added to all the No's.

I guess this rant has been to implore the food-establishment operators to give better value to students. We are already in debt with all the tuition, rent, and books we pay for, please don't dig us a deeper grave with exorbitant food prices. We are stressed from all the work we have to do, please be considerate and try to provide healthy food and better attitudes toward us. Also, to all students, if they don't listen, we should all boycott one establishment per month to force them to re-evaluate their practices. I'm tired and fed up with plaza food, who is with me?

Henry Bian
4A Chemical

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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

An Epiphany About The Tool



SYLVIA WU
1A MECHATRONICS

Certain rumours have it that during Frosh Week 2006, a poor and certainly dumb frosh got his hand broken by The Toolbearers for touching The Tool.

True or not, this story instilled much fear in me. I did not dare to think of laying my fingers on The Tool, not that I ever came within reaching distance during Frosh Week 2007. Back then, my prudence was not out of respect for The Tool, but rather out of intimidation

of The Toolbearers' imposing physiques, black overalls, and watchful eyes behind those gleaming sunglasses.

I came quite close to touching The Tool on Homecoming Saturday. While volunteering as security at POETS, I had the chance to pose for a picture with The Tool. I was so close to The Tool I could feel our electron clouds intersecting. The temptation was hard to resist, and my hand gravitated towards The Tool uncontrollably. However, a large gloved hand intervened and I was saved from doing the unthinkable and horrendous crime by one of the silent guardians of The Tool.

As defroshing progressed, it came to my understanding that The Tool is a divine

"I was so close to The Tool I could feel our electron clouds intersecting. The temptation was hard to resist, and my hand gravitated towards the Tool uncontrollably."

being, and the only hands that would not taint The Tool are those worthy of receiving an Engineering degree from University of Waterloo. No doubt, touching The Tool would be a wonderful feeling, but that special touch should be reserved for the Iron Ring Stag, since shaking hands with The Tool is a part of the ritual of graduation.

This is almost comparable to one losing their virginity on their wedding night (though undoubtedly, more engineers would rather wait for the handshake than for sex). Upon having this epiphany, I was ashamed of letting my unconscious gain control at Homecoming. My hands are still unworthy; it would be atrocious to taint The

Tool in full realization of this fact.

My love and respect for The Tool is still growing exponentially. I eagerly look forward to every Tool appearance and photo opportunity. I feel warm and fuzzy about being a pixel on the aerial photo that spelt out "40 YEARS RIDGID"; I insert images of The Tool into my MTE100 graphics assignments whenever there is room for creativity. Some may call me obsessed, but I am not afraid of such public display of affection. My fervent anticipation for that special touch constantly motivates me to gain the Iron Ring timely, and I know that in 1558 days, I'll finally be able to experience the indescribable sensation of touching The Tool.

Memoirs of a Graduate



JEREMY TAYLOR
CIVIL '07

Although my experience as a frosh was well over five years ago, I still recall the most important events like it was yesterday. When I first crawled through the makeshift tunnel of tables and garbage bags into my group headquarters, I yelled out, "Guys, wait up! I fell on my keys. Ow! Ow!" Hearing their laughter, I knew the people at the end of the tunnel got the reference to Wayne's World, and I was welcomed. When Edcom burst through RCH 101 for the first time, I was actually quite intimidated. They really did look like they could benchpress their own weight, and mine. But what left the greatest impression on my mind was the first time I met The Tool.

I was very keen on frosh week and traditions. I had really great leaders, and I had a lot of fun. Sure, the cheering was irritating and all too frequent, but how often do you get to yell at the top of your lungs in the Dana Porter Library? (aside: how often do you even go into the Dana Porter Library?) Our team won the "Meet The Tool" contest and was given priority viewing in the front row. The lights dimmed. The theme from 2001: A Space Odyssey boomed. The bearers in black and gold came forward, and with them... The Tool.

It is more than chrome-plated steel. It is more than a heavy-duty pipe wrench. It is more than a custom-made apparatus kept hidden in a secret location. It is a mascot for which everything Waterloo Engineering stands for, and this was my moment of Zen: I had become a part of something greater. See below.

the beginning. It was there for every Beginning, Middle and End Of Term party; every Semi-Formal; every Bus Push; every TalEng; and it made all kinds of special (and sometimes unexpected) appearances elsewhere. The Tool fosters a sense of camaraderie in its followers, and provides a focal point for celebration of all what it means to be an engineer. It respects Hooke's Law, and commands your respect. Ask not what The Tool can do for you, but what you can do for The Tool.

The Tool is to be held in high respect. However, to hold – nay, to touch The Tool, for to hold The Tool is too great for any one person – to touch The Tool is the greatest and noblest tradition Waterloo Engineering has. But, to touch The Tool you must guard yourself with a ring of hardened steel. For that you must work hard, persevere, and endure the rigours of Canada's most difficult and acknowledged undergraduate engineering program.

Although my credentials have been attached to my name for only a short time, my Iron Ring has become incredibly comfortable on my finger. Every opportunity to touch The Tool has been held with the greatest respect.

"A common mistake that people make when trying to design something completely foolproof is to underestimate the ingenuity of complete fools."

- Douglas Adams, from Mostly Harmless



Of Tools and Traditions

ANN-MARIE WINKLER
4A MECHANICAL

I started my university career five years ago in 2003. My dad is a UW alumnus (astro-physics '74) and I have been hearing UW stories from the early 70s for as long as I can remember. I've heard stories about pranks, about rivalries and about the history and traditions of the university. When I was accepted to UW, my dad told me all

I needed to know about UW Eng. This conversation included plans for stealing the tie; advice like "Don't anchor when you BOAT race... you're too small" and "Never lose your Pub-Crawl buddy!"; and how cool The Tool was. That's right, even the other faculties think The Tool is pretty awesome. My dad told me about how the tie was stolen all the time and how sometimes The

Tool would be walking around campus. But that was a long time ago. Now we get expelled for stealing the tie, and The Tool isn't seen much by people that don't attend certain events. The Tool doesn't just go for a stroll around campus, but why?

The Tool came from a time when school spirit was cool. Back then, everyone went to support the sports teams and people cared about the reputation of their school. Mascots were stolen all the time and returned quickly in a funny way, but we know that wouldn't happen now. Times have changed and people aren't the same anymore; the people back then had pride and respect for all these mascots. Why isn't The Tool strolling around campus anymore? Well, for one, no one wants it stolen again. There's also another risk though, since there isn't

"The Tool came from a time when school spirit was cool. Back then, everyone went to support the sports teams and people cared about the reputation of their school. Mascots were stolen all the time and returned quickly in a funny way, but we know that wouldn't happen now."

as much respect these days, there are worries of what could happen.

Waterloo Engineering is rooted in traditions, the biggest being The Tool. Some may argue that The Tool should be free access, that it's our mascot and we should be able to touch it when we want. What fun would that be? I think my iron ring will be far more special because it's my pass to touching The Tool. Trust me, when you're at your wits end at 4 am working

on an assignment that just doesn't seem to be working out, you start to wonder why you're voluntarily putting yourself through this. My first thought is, IRS in less than 100 days, getting my ring and grabbing The Tool. The best way to get yourself through is having something to look forward to on the other side, and I think that the traditions surrounding The Tool give all of us just that.

We lose more and more traditions every year. The administration has changed frosh week, for example, so that it is only a shell of what it used to be. Yet, we still have the best frosh week on campus because we're still holding on to all the traditions we can. Abolishing more of this isn't doing us any good. These traditions are the things that bring classes together, the things that make five years of really hard work fun. These traditions may not be your thing, and that's alright. University is about defining yourself and figuring out who you are. Just because it isn't your thing though, doesn't mean you shouldn't respect everyone else. If you want to be disrespectful, keep it to yourself so that those who do enjoy all the traditions we have can continue doing so for years to come.

Look But Don't Touch

MATT HUNT
2N MECHANICAL

Currently I am a 2B Mechanical student and I just wanted to address the student body on The Tool, our EngSoc mascot. At recent events from both societies A and B non-ringed students have been trying to, or even succeeding in touching The Tool. This is really inappropriate and unacceptable for several reasons.

Not touching The Tool is a simple rule; it stops a mass of people (more often than not intoxicated) from trying to grab at our mascot and causing serious problems. The Tool is there for all of us to enjoy equally. It is a symbol of who we are. Let's face it, the 'Tool' is a real tool, in that you could go and buy one from the Ridge Tool Company, heck you can even find the exact one on their website, and surprise surprise it does not weigh a million pounds.

So one might ask, "Then what does it matter if I touch it?" it comes back to the fact that The Tool is a symbol. The Tool itself is one of the oldest traditions that Waterloo Engineering has, and not touching it without a ring has been a tradition nearly as old as The Tool itself. It brings us together and it is another thing to look forward to upon graduation, or more specifically when we get our rings (hopefully, in 4B). By attempting to touch The Tool when you are not yet ringed, you spoil the tradition. You have taken it upon yourself

to be selfish and publicly break a rule in front of your peers. As much as the atmosphere is different, would you break a rule or law regarding your career in engineering in front of your peers at PEO? Not likely.

Now if someone has decided to break this rule for the purpose of being rebellious you have to ask why? This is not the form of rebellion to express an infringement of rights; this is a rebellion of personal gain. Touching The Tool does not make you popular or get you drunk. So if the kicks are coming from tricking The Tool bearers and the EngSoc President, what is the point?

Much like we buff up The Tool and make it out to be this enormous entity we do the same with the bearers. Like any myth, tall tale, or big fish we crank up the story to make it more exciting, more interest-

ing, and more fun. But The Tool bearers, whoever they may be, are just real people wearing a uniform. Sneaking around or moving faster than a person whose face is covered with a mask and wearing coveralls is not my idea of impressive or rebellious.

In short, The Tool is a point of pride for many undergraduate engineering students at Waterloo, and if you do not like it or wish not to celebrate it give those that do the space and right to celebrate without conflict. Like any celebration it is there for those who wish to participate to enjoy, and not there for those who do not like it to ruin it.

ENGINEERING SOCIETY EXECUTIVE REPORTS

Presidential Report



AMANDA HOFF
PRESIDENT

Wow, is it really time for another article already??? Well here it is, my second last exec report of the term for your reading pleasure!

MOT was fantastic thanks to everyone who came out! Jim Pike, bringer of the tool, once again graced us with his presence. He shared fantastic stories of Engineering in the '60s with those of us fortunate enough to be there and speak with him.

Among the many other exciting events coming up, we will also be having an Accountability party as mandated by you, the members. It is happening on Wednesday November 21 at 5:00, location TBD. What is an 'Accountability party' you may ask? Well, it's basically your opportunity to hold us as

Exec accountable for what we have or have not done throughout the term. Also you may provide feedback to help us improve for next term. I strongly encourage you all to come out and participate in this forum. The more feedback we get the better! The P**5 points for this event will be high, and who doesn't love a good Accountabilitybuddy?

In other news, FOC applications are now open, and interviews will be held next weekend (November 17th, according to the current plan). If you're interested in applying, this is your chance! For anyone who's not applying for FOC but who wants to be a frosh leader for next year, those applications will also be opening soon so keep your eyes and ears open for more news!

That's about all for my Exec report this week... I hope it was everything you'd ever dreamed of! (Well, maybe almost everything... so you still have something to look forward to in Prez Report #5)

VP Internal Report



CAT HAY
VP INTERNAL

Put on your party hats because the next few weeks are jam packed full of awesome events! We've got the 24-hour SCavenger hUNT coming up this weekend (Nov 16-17). It includes a lot of the same events that you saw during frosh week, plus the addition of a road trip, bus trip, and Eng-Play! Engineering teams pay \$30/team and teams can be as big or small as you'd like.

Now let's get back to that EngPlay... Every term EngSoc puts on a play. This year's play is titled "Mounting Sex in the Afternoon Zone" and you can read a detailed description in Marissa's article in the last issue of *The Iron Warrior*.

Next week we've got TalEng, our very own Talent Show! This year it will be more AHSM (pronounced "AWE-SOME") than ever since everyone from AHS is also invited! It will be held in SCH on Monday November 19 and it's FREE! All kinds of

acts are welcome, so make sure you check out www.eng.uwaterloo.ca/~taleng to sign up!

On Wednesday (Nov 21) we've got Genius Bowl! You need to sign up in teams of six and be prepared for trivia to come out of your ears! Keep your eyes peeled for posters this week with more details!

If you're reading this article and wondering how you can get involved with organizing these events (or any others you've seen this term), then I urge you to consider applying for directorships. Directors are the students who put together all of the events and services you've seen this term. You don't need to have any prior experience because we will pair you up with someone who's done it before, and there's always an Exec member whose greatest goal in life is to help you successfully run your directorship! Applications are on www.engsoc.uwaterloo.ca and are open November 14th to 30th. One of the Exec will also be in the Orifice from 11:30-12:30 every day the week of Nov 26-30 if you have any questions.

VP External Report

Because Point Form is Easy to Read



ERICA WAUGH
VP EXTERNAL

- Thank you to my wonderful Remembrance Day directors for putting together a lovely service and working so well together!! You guys did a great job!

- MORE PANCAKES!!!... Friday Nov 16th... Same time/place/taste

- PEO Student Conference was held in Toronto Nov 2-4. Waterloo had a great showing with 10 delegates and even a few extras for the free workshops. We learned about sustainability and improving quality of life as a professional engineer and had a few dozen laughs at the evening social. Thank you to UofT for doing an awesome

job!

- Some unfortunate news in the CFES, the president has resigned due to other obligations. We are sad to see her leave but show full support for the interim replacement.

- Best of luck to competitors in the Ontario Engineering Competition qualifier this weekend!

- This weeks ESSCO teleconference brought some new meaning to the term 'member in good standing', as a member we are now required to RSVP for 75% of meetings and actively pursue hosting a conference every three years. This motion was passed because it encourages schools to stay active in ESSCO and to promote the continuity and enthusiasm within the organization.

Peace y'all and thanks for reading!

VP Education Report

Course Critiques: "They Actually Are Important"



PATT GILLIS
VP EDUCATION

First of all, I'd like to thank everybody who came out for the Course Critique Stuffing Party, as well as the directors for setting it up... I've never seen such intense stuffing before in my life!

I'd also like to pass on a few words from Associate Dean Loucks, who stopped by to help make sure everybody understands just how important Course Critiques are. First off, on the back of the form where you get to fill in any additional comments, this is one of the only ways for your professor to receive honest constructive feedback from the students sitting in the seats. Almost all professors take these comments seriously when considering their teaching methods for the future. Secondly, the results regarding the course material, is taken into consideration by the Faculty every year when they are deciding what courses to keep and what courses may need a face-lift. Finally, the numbers collected from the section regarding the performance of the professor, are used at every level of a professor's evaluation. Every professor's work at the university is required to include three aspects: teaching, scholarships, and service. They are required to prove proficiency in each of these areas

when applying for faculty appointment (Definite-Term, Probationary-Term, or Tenured) as well as when applying for promotion to professor, and during their annual performance review. Therefore, as one of the only quantitative measures of a professor's performance, the course critique evaluations are commonly used at all of these levels. It is important to keep in mind that for these evaluations to be credible, they must have a reasonable return-rate. So as to ensure an opinion of the majority of the class is being represented and although in itself not filling out the critique provides feedback that students are not attending the lecture, by not filling out the critique you are failing to play your part in helping keep our University one of the best in North America.

And if you don't want to read all of that: GO TO CLASS, FILL OUT THE COURSE CRITIQUES.

I encourage anybody who is interested in any of the processes mentioned above to read up on them in University Policy #76: Faculty Appointments, and Policy #77: Tenure and Promotion of Faculty Members, both of which can be found on the University Secretariat's webpage.

In other matters, we have finally been able to set up the elusive PDEng Independent Review Forum (as I talked about in the Oct 10th issue of *The Iron Warrior*) for Thursday November 22, in CPH 2387 from 4:30-7:00pm.

VP Finance Report



CHRIS JAMIESON
VP FINANCE

Hello everyone, I have two things for you all this week. First off, I have the council approved budget. Unfortunately, due to a

mistake on my part, the Jazz band was misplaced. I will be using my discretionary fund to allow them to continue their operation and properly hold their charity event this term. Secondly, I have the donation decision which was reached by the council last meeting. Congratulations to all that are receiving a donation.

The STC will also contain a fully stocked student machine shop twice as large as the current one. It is being designed as an open concept, to promote cooperation between student groups.

This great idea is happening soon, and WEEF would like to be a part of it. WEEF is here not only to increase the quality of education here at the university, but also to give students the opportunity to work on the most cutting edge and exciting projects possible. In that spirit, the WEEF board of directors has come up with a proposal that will allow WEEF to make a very large contribution to the STC. How large? The total budget for the STC is estimated to be 12 million dollars. The proposed plan will allow WEEF to generate 4 million dollars to the project. The proposal calls for a 1 million dollar donation on the part of WEEF, but the Faculty of Engineering has pledged

to match any donation made by WEEF, and the university has agreed to match that figure.

The board of directors believes that this kind of donation is just the kind of thing WEEF was created to do. Other large proposals have been considered in the past years, but none have stood out as much as this one. Add to that the fact that the money donated by WEEF is quadrupled, and you have a very solid large-scale donation. Some of you may be thinking that this large donation will affect the amount of money that WEEF gives out every term. If donated, the money will be removed from the WEEF account over a seven year pe-

riod. This will allow the amount of money WEEF gives out annually to remain the same, or even rise during this time, depending on the participation rates. The important part is that WEEF will not be giving out any less money if the application is accepted.

The proposal will be presented to the funding council during the month of November, and I encourage anyone who is interested to come and ask questions. You can also send an email to weef@engmail.uwaterloo.ca. This is a great opportunity for WEEF to make a difference, and I for one am very excited about it.

WEEF Director Report



ALEXANDRE JAMES
WEEF DIRECTOR

As some of you may already know, the university will be breaking ground on the new buildings this coming March. The first two floors of one of these six-floor buildings will become the new Student Design Center (STC). The STC will be a state of the art workshop for students and student teams. It will contain work bays, work benches, meeting rooms, and best of all, a new student machine shop! The size of this project is immense, quadrupling the current space given to student teams. This will allow for the current teams to receive the space they need, as well as allow brand new teams to be given space and resources.

"Reputed" to be the Best

ANDY DANIELS
2N CIVIL

As another fall is underway, it brings with it one certainty: the Maclean's University Rankings issue. For us, it is no longer a useful tool for choosing the path of our education. However, let us take a look at what it does say about our school, so we can know where it is that we stand.

As a Comprehensive University we have taken another tumble this year, falling to third place behind Simon Fraser and Victoria. However, we placed first in the Best

Overall, Most Innovative, and Leaders of Tomorrow categories, and rounded out the top by placing second after McGill in the ranking of Highest-Quality Reputation. Sadly, we have the lowest operating budget per student in the entire country. Perhaps we could suggest to the donors who are adding buildings to campus at an ever-increasing rate that they instead help us to raise our sorely-lacking budget to improve what we already have, rather than stretching our resources and quality even further.

See MACLEANS on Page 6

ENGINEERING SOCIETY 'B' FALL 2007 DONATIONS

Group	Allocated
CUBE	\$340.00
TeamQuadrAssist	\$150.00
STEP	\$100.00
GradComm	\$400.00
EWB	\$120.00
Autonomous Firefighters United	\$150.00
CEC	\$500.00
Waterloo9-1-1! GNCTR 2008	\$240.00
Total	\$2,000.00

You Are Invited To:
GENIUS BOWL
Waterloo's Finest Trivia Competition

Hard Trivia

Fantastic Prizes

November 21st at 6:30pm. Sign up with six or less on the orifice door by Monday November 19th

Mounting Sex
in the
Afternoon Zone
by Caroline Russell-King

A comedy about love, theatre, and air raids.

Nov 16, 7pm
Nov 17, 2:30pm and 7pm
AL 113
Tickets: \$6/ea.
Available at Orifice and Turnkey



Estimated Income

Student Fees	\$42,481.27
Total	\$42,481.27

Fixed Costs

Bank Charges, Payroll, Utilities, Office	
Total	\$22,000.00

Expenses

Tool	\$1,000.00
President	\$1,000.00
VP Finance	\$1,000.00
VP Education	\$500.00
VP External	\$500.00
VP Internal	\$500.00
Total	\$4,500.00

Capital Expenditures

New Business Venture	\$1,200.00
Total	\$1,200.00

Directorships

Prez	
Archives	\$130.00
POETS Manager	\$735.00
POETS Programmer	\$200.00
Speaker	\$2,976.00
Prez Subtotal	\$4,041.00

Education

Frosh Mentoring	\$200.00
PDEng Rep Advisors	\$204.00
Resume Critiques	\$80.00
Education Subtotal	\$484.00

External

Charaties	\$400.00
Competitions	\$125.00
Parade	\$250.00
Shadow Day	\$10.00
WIE	\$265.00
External Subtotal	\$1,050.00

Internal

Arts	\$97.00
Class Rep Advisors	\$120.00
Darkroom	\$183.10
Drama	\$1,309.30
Email Communication	\$0.00
Enginuity*	\$149.00
EOT Video	\$44.00
Genius Bowl	\$350.00
Halloween	\$200.00
Multiculturalism	\$140.00
Music	\$240.00
P**5	\$1,100.00
SCUNT	\$610.00
Semi Formal	\$560.00
Special Events	\$274.00
TalEng	\$965.00
Task Team	\$310.00
Whiteboard*	\$55.00
Year Spirit 2009	\$100.00
Year Spirit 2010	\$50.00
Internal Subtotal	\$6,856.40

Total	\$12,431.40
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Donations	\$2,000.00
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Net	\$349.87
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Should EngSoc Fund The Iron Warrior?

Implications of Acknowledging The Iron Warrior in the Engineering Society Constitution

TYLER GALE
3A GEOLOGICAL

At the most recent engineering society meeting, a motion was brought forth to present a constitutional amendment acknowledging *The Iron Warrior* as the Engineering Society's official newspaper. This motion was then altered to add acknowledgment of what was worded as EngSoc's "financial obligation" to IW. I would simply like to pass on a few thoughts regarding this proposed amendment.

On the surface, to make official the status quo may seem like a simple maintenance operation, but there are some underlying implications that complicate the matter. My fear is that these complications may lead us down the wrong path. It all boils down to two things: A form of fiscal responsibility on the part of EngSoc, and the independence of journalism.

Before digging deeper into the issue, I would like to make it clear that I have no issue with acknowledging IW as the official publication of the Engineering Society. My concerns are related to financial com-

mitments.

Here is a bit of history. A time not long ago, IW was financially independent through advertising means. The company that used to manage IW's advertising closed down a few years ago and since then the IW staff have been left to seek advertising revenue themselves – a task unquestionably difficult for students with a full course load and relatively few advertising contacts.

With regard to fiscal responsibility, EngSoc has a responsibility to manage its revenue in a manner that best serves the students for the long run (i.e. the \$14 membership fee). My fear is that by committing in writing a financial dependence of IW on EngSoc, we are making something permanent that was initially meant to be temporary. It would be financially irresponsible to go down that road. A funding policy of sorts may be an option, but it would have to be very carefully worded and contain accountability

"It all boils down to two things: A form of fiscal responsibility on the part of EngSoc, and the independence of journalism."

clauses and no guarantees. The ideal situation would involve IW connecting with a new advertising company and return to the financially independent status it had not long ago.

Journalistic independence fits in with the point about accountability tying in with financial dependence. If EngSoc were committed to funding IW, then by right EngSoc council should have veto power over the editorial board and the IW EIC position should be a directorship reporting to the EngSoc exec. This deteriorates substantially on the paper's

freedom to criticize its society and gives it an implicit bias in favor of one particular organization. I realize that this argument is not something many would expect from someone who will be spending the next year enduring this criticism, but lets step back and think about the future. After all my arguments herein are related purely to the future and the direction in which these

amendments will take the paper.

In a few e-mail threads being passed around recently, some hot discussion has been taking place regarding what exactly the status of the relationship between EngSoc and IW really is. One party argues that the paper is a subsidiary of EngSoc. This is being used as an argument to suggest that EngSoc should have a financial obligation to the paper. The other party argues that IW is an independent organization, and that as such casting in to stone a financial obligation would not be appropriate. Disagreements like this are an unfortunate reality of student society organizations. There are loopholes in our constitution, and where they exist, the status quo rules. Sometimes committing to the status quo is not the optimum option. This proposal for constitutional amendments should be taken as an opportunity for all parties involved to sit down and discuss the direction they would like to see the paper go. Rather than simply acknowledging the status quo, let us come to a consensus that all parties can agree upon.

DesignCampWaterloo: Bringing Together Innovative Minds



CHRIS FORTMUELLER
1A SYSTEMS DESIGN

DesignCampWaterloo, which is managed by a group of UW students and headed by UW Master's student in Rhetoric and Communication Design Adeel Khamisa, held its second DesignCamp installment last week in the Great Hall of the Student Life Centre at the University of Waterloo. The event, which took place as part of World Usability Day 2007, consisted of two parts and was open to anyone who wanted to drop by.

A diverse group of people was represented, some of whom were from Industry or Government, as well as students. One of the two parts of the event consisted of

a competition in which the participants were divided into 3 groups. These groups were then presented an open ended design challenge: to "design a solution to one aspect of this complex problem: the use of an information system during the physical exam of the patient by the physician". The participants were asked to take into account several factors, such as the fact that the physician would need to be able to have hands-on contact with the patient and also interact with the patient and the information system, as well as psycho-social issues such as the impact of the information system on the quality of the patient-physician encounter. They were also advised that "there are no simple solutions, or the problem would not be the subject of current research". The groups were then given about 40 minutes to design a solution.

During the 40 minutes, the groups brainstormed ideas, discussed them, discarded some, and kept others. Once the time had elapsed, they were asked to present their ideas (using posters they had been given earlier) to a panel of judges who were appointed based on their "knowledge of user experience design, product feasibility,

and knowledge of the health care industry made. These judges were Dominic Covvey (Founding Director of the Waterloo Institute for Health Informatics Research), Catherine Burns (Professor in Systems Design Engineering with Research Interests in Ecological Interface Design and a member of WIHIR), David Crow, Designer and Developer at Microsoft, and Harold Harder (Waterloo Co-op Co-ordinator for Microsoft).

In the 40 minutes, the groups had designed some interesting solutions and brainstormed some interesting ideas.

The first group had used part of its time to evaluate the data gathering process during visit at the physician, from the first phone call to make an appointment, to the point when the patient exits the clinic with a future course of action in mind. They

"The system would also be able to display an image of the patients' bodies, which could be zoomed in on by touching the screen on the respective body part. If a patient complained about experiencing pain in, for example, their knee, the physician would be able to zoom into that body part on the screen just by touching it.."

also had the idea of using a wall screen to display and enter relevant patient information during the patient's visit at the physician's. One of the purposes of this wall screen, according to the group, would be to allow the physicians to explain to their patients how they reach certain conclusions, thus

allowing the patients to understand their conditions better and make the whole experience less foreign.

The second group's solution was a touchscreen computer system. This system would measure, store, and display the patients' vitals in real time. This data could be compared to data the system had previously recorded from the same patient, in order to monitor changes in the patients' conditions. The system would also be able to display an image of the patients' bodies, which could be zoomed in on by touching the screen on the respective body part. If a patient complained about experiencing pain in, for example, their knee, the physician would be able to zoom into that body part on the screen just by touching it. The screen would then display the possible symptoms a patient can experience in their knee, while excluding symptoms that can-

not appear in the knee (such as fever). This could make diagnosis quicker and less error-prone.

The third group had designed a tablet PC that would have the ability to take pictures and record audio. The photo-feature could be used to visually track the change in a patient's condition by storing and comparing pictures from different points in time. The audio-recording ability was also praised by one the judges, who said this was a new idea to him. That judge went on to state that he was impressed with the solutions the groups had come up with, since many of the ideas presented were very similar to the ideas being studied and developed in actual research in this field.

Shortly after the 3 presentations, the judges pronounced Don McKenzie (a UW Economics student specializing in Digital Arts Communication) and Henry Szeto (an Urban Planning Major from UW's Faculty of Environmental Studies) from the second group to be the winners. They were awarded a package of prizes which included computer software and video games.

The other part of the event consisted of presentations that all had a relation to design. Some were concerned with digital arts design, such as a presentation by one of the speakers on Critical Media Lab (or



The winners during their presentation: Don McKenzie (left) and Henry Szeto

Crimelab), which is a cross-disciplinary, research-creation initiative founded in UW's Faculty of Arts. Other speakers presented Render (UW's Art Gallery, which can be found in East Campus Hall), Lilac (an online community-communication platform), Zimride (a carpooling website), and PickleJar (a site designed to collaborate and take notes), as well as several other projects. All in all an informative and fun experience!

For more information on DesignCampWaterloo, visit www.designcampwaterloo.ca.

Waterloo Engineers Lack School Spirit: Maclean's

MACLEANS
Continued from Page 5

On the lighter but nonetheless sad side, we aren't even a blip on the Engineering prank radar. An article in the issue detailed some real engineering pranks, ones that require "accessing the inaccessible" and "making possible the improbable". The last UW "Engineering Pranks" you may recall were when the orange statue outside of the C&D was painted black, as well as the recent forest-planting on the B2 Green. Let me remind you that painting is what you do in art class, landscaping is a trade, and neither is inaccessible, improbable, or going to make anyone scratch their head wondering how the 'feat' was accomplished. For some truly amazing stunts, see The Univer-

sity of British Columbia's Engineers' long list of accomplishments. They have hung VW Beetles from nearly all the bridges in the Vancouver area, as well as the Massey Tunnel and a wooden roller coaster at the Pacific National Exhibition. They've stolen the BC parliament's speaker's chair. They were a top CNN story in 1992 when they stole the Rose Bowl trophy. Oh, and they made news as far away as Europe when they hung a VW from the Golden Gate bridge, arguably the most famous bridge in the world, using extensive planning and even having engineering consultants to ensure that no damage would be done to the bridge from the load. The shell now lies deep underwater beneath the bridge.

The bottom line is that we are slipping.

Waterloo Conference on Social Entrepreneurship

This weekend the Waterloo Conference on Social Entrepreneurship is taking place, hosted together by the University of Waterloo and Wilfrid Laurier University. Social entrepreneurship involves passionate individuals coming together with business-focused resources and knowledge, to instigate social change. The concept exists on many levels, from local, community-based work to international applications on a grand scale.

The conference runs from Friday until Sunday, with events taking place at both UW and Laurier. It is open to all members of the community for a small fee, and students can register at no cost. A series of lectures and keynote speakers, including Waterloo Mayor Brenda Halloran, will offer insight into the world of social entrepreneurship, while workshops will allow attendees the opportunity to get hands-on exposure to some extremely practical skills including securing sponsorship, networking, and conflict resolution.

WCSE will place a focus on three major concepts this weekend. The first, international development, examines the problems associated with extreme poverty and potential solutions to these problems. Big changes often need to start out small, so community leadership is another issue tackled at the conference. Many of the speakers act as outstanding leaders within their communities, so WSCE provides an excellent chance to learn from their experiences. Lately, environmental concerns have prompted a huge interest in the notion of sustainability, and social entrepreneurs have played a significant role in raising awareness of the need for fundamental change.

The Iron Warrior recently had the opportunity to speak with Suzanne Gardner, the conference's Director of Public Relations and a recent UW graduate.

The Iron Warrior: Where did the idea for the conference first come from?

Suzanne Gardner: Andrew Dilts, an alumnus (BA '05) and current masters student at UW, had the idea for the inaugural Waterloo Conference on Social Entrepreneurship and is currently serving as the conference chair. The team recognized that although the concept of social entrepreneurship is not a new one, the field is currently experiencing a rising prominence as today's social entrepreneurs now have the ability to access knowledge and resources previously unprecedented in society.

IW: How long has the event taken to plan?

Five out of seven members of the conference leadership team sat down for their first team meeting on October 5th. The other two members weren't in attendance because we hadn't even found people to fill those roles yet! About a month and a half later, we're kicking off the conference on November 16.

IW: How did you get involved in the conference?

SG: Near the end of September Andrew Dilts, our conference chair, asked me if I was interested in taking the lead for media and public relations for a conference he was developing.

IW: How are the concepts addressed in this conference relevant to students?

SG: The concepts addressed in this conference are relevant to everyone interested in learning more about the world of social entrepreneurship. Students wanting to perhaps start a career in this field will find the hands-on workshops and the many networking opportunities particularly useful.

IW: What events might interest engineering students, in particular?

SG: Engineering students will definitely want to attend the keynote lecture from George Roter, co-founder of Engineers Without Borders and UW engineering alumnus. He will be speaking at 7:00 p.m. on Friday evening.

IW: How will non-student members of the community benefit?

SG: This conference is truly one that anyone interested in the world of social entrepreneurship will benefit from. From inspirational lectures by successful social entrepreneurs, hands-on workshops with industry leaders, and networking opportunities galore, the conference will be a beneficial experience for students and community members alike.

IW: There seems to be an unusually high level of entrepreneurship coming from students and alumni from the University of Waterloo (ie. RIM). Why do you think this is?

SG: Clearly Waterloo is an entrepreneurial hotbed of a city, huh? I think at this point it's a chain reaction of sorts, as the high level of entrepreneurship that currently exists continues to foster the perpetuation of a young entrepreneurial spirit within the students.

IW: The conference promotes the idea of community leadership. How do you think Waterloo measures up as a leader in Canada and around the world?

SG: Being the world's top "intelligent community" of 2007, I think it's fair to say

that Waterloo is definitely a world-leading community!

IW: How does this conference reflect the innovative spirit of the Waterloo community?

SG: This conference went from an idea to a reality in less than two months, with three UW alumni, two UW undergrads, one WLU alumnus, and one WLU undergrad at the helm. I think the creation of the conference itself truly reflects the innovative spirit of the Waterloo community!

IW: In an age of climate change and dwindling natural resources, the concept of sustainability is important. How does the conference promote positive sustainable development?

SG: One of the conference's three themes is, in fact, sustainable environmental development. Our focus is not so much on sustainability at the everyday level, rather we aim to explore the role that social entrepreneurs have played to help bring awareness and sustainable, fundamental change to help address environmental problems. Our Sunday afternoon keynote speaker Bob Willard will focus on this topic with his lecture entitled "The Business Case for Sustainability".

IW: Will the WCSE set a trend for other such conferences in the K-W region?

SG: Yes, organizers of the conference are currently laying the groundwork for future events, such as a speaker series, mentorship, alumni networking, and future conferences.

IW: What about the conference are you personally looking forward to the most?

SG: Personally, I'm looking forward to a lot of the workshops the most, such as the "Working with the Media" workshop with

Christian Aagard from The Record and the "Networking" workshop with Dave Howlett.

IW: The conference is less than a week away. Are there many spots left?

SG: We have had an overwhelmingly positive response and are booked full up now! We have more than 150 delegates registered, with representation from schools such as McGill University, Queen's University, the University of Ottawa, the University of Western Ontario and more.

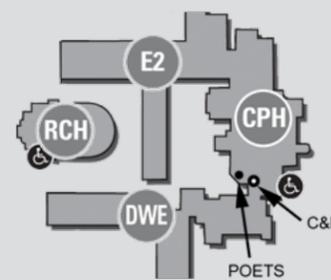
Though the conference itself will only last for a single weekend, it is hoped that it will have much further-reaching effects. Future events are already being planned, and a mentorship and alumni networking initiative are in the works too. For more information on the conference, and to get in touch with the organizers, visit their website, www.wcse.ca.

The Iron Warrior would like to thank Suzanne for taking the time to answer our questions.

MORE THAN JUST COFFEE & DONUTS

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

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



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

ENGINEERING SOCIETY



Frosh Goes To Conference, Gets Skule™d

SYLVIA WU
1A MECHATRONICS

The 3rd Annual Professional Engineers of Ontario Student Conference kicked off on Friday, November 2, 2007 at the University of Toronto. The Conference was hosted by the U of T Engineering Society on behalf of the Engineering Student Society Council of Ontario (ESSCO). Prominent members of the engineering industry and academia discussed topics relating to the theme of the conference: "How engineers improve the quality of life". Engineering students from all over Ontario attended this conference, including sixteen of our own, headed by VP External Erica Waugh.

Note: despite the similarity of the first paragraph to the description of the conference found on its website, what's to follow is definitely not a paraphrase of the information package for delegates.

The Plummers from Waterloo received our first welcome when Professor D. Grant Allen, Vice-Dean of the Faculty of Applied

Science and Engineering at UofT, joined us during breakfast on Saturday. Upon speaking to Prof. Allen, the lost frosh in me found a sense of purpose. Paraphrasing him, the goal of the conference is not only to help engineering students realize how we can impact society, but more importantly, to inspire us to play a more active role in society and in turn, help the public see how engineers impact society. It was re-emphasized again and again at the conference that engineers need to be more actively involved in the decision-making process. We have the knowledge to benefit decision-making; however, we are not doing enough to engage society, and consequently our impact often goes unnoticed.

A wide range of topics were discussed: rehabilitation engineering, robotics and automation, reduction of the environmental impact of aerospace engineering, building sustainable cities, etc. Out of all the sessions I attended, Professor Bryan Karney's "Achieving Global Sustainability Through Engineering" left the deepest impression,

although it was one of the least technical. A civil engineering professor at UofT, he passionately spoke in the style of a philosopher. He referred to engineers as custodians of the health care system, for we take care of people before something goes wrong. The following is a paraphrased excerpt of his speech:

"We are responsible for providing healthy food, clean water, and a livable environment to the people around us. In the past, our successes have done harms to our world. As engineers of the future, we need to innovate ways to live gently on the earth, to preserve human and planetary health, because our earth is worth caring for. We can't merely solve problems that are pointed out to us. We must look where everyone is looking and see what no one else can see."

From what I was able to extract from Professor Karney's speech, a most respectable quality about him is his ability to appreciate everything. According to him, rain is not something of annoyance when one

steps out of the subway, rather, it sustains life. In the same sense, a midterm is a opportunity to learn!

This article cannot end without paying homage to the committee that organized this year's conference. As low as they are on the hierarchy of life (according to The Book), UofT engineers did a great job as hosts. The accommodation was comfortable and impressive; the food was tasty and filling; the entertainment at the Laugh Resort was a welcoming break from business casual. Most importantly, they brought in amazing speakers, especially Prof. Bryan Karney, who forever changed my view of engineering. I'm almost starting to think that maybe the UofT engineers are not so evil, despite the fact that being at UofT on The Tool's 40th birthday brings back the bitter memory of the theft of 1982. The idea of presenting the Cannon as a present to the Tool on this very special occasion did cross my mind. However, it's just rude to offend such a wonderful host. Perhaps some other time, for the Plummers will never forget.

SPECIAL REPORT: AT THE

JEFF KAO
4A SYSTEMS DESIGN

Are you ready to be a leader? Are you ready to make an Impact? The 2007 Impact leadership conference was about just that; giving university and high school students the confidence, ideas and motivation to transform their lessons and experience into change in the real world. This year's conference lasted a short two days, on November 9 and 10, but the lessons learned and connections made at the conference have undeniably made a lasting impression on the participants. The Impact organization is a non-profit, entirely student-run organization that seeks to promote entrepreneurship and leadership in Canada. Through the various events that it runs through the year,



it seeks to inspire an entrepreneurial spirit in young people, and to ready them to become the leaders of tomorrow.

This certainly is no small task. After all, it's difficult to even have a complete idea of what an entrepreneur does. We often only hear of the results of entrepreneurship: the great wealth accumulated by an initial public offering; and the broad reach of a disruptive technology such as the BlackBerry. However, there's a lot more to entrepreneurs than huge profits, having something named after you, or (trying to) buying a hockey team and move it to Canada. It's more than just finding a profitable application for technology. Behind each of these



successes is a story of hard work, perseverance, intelligence and perhaps a bit of luck, too.

The Impact Story

To see an example of entrepreneurship in action, one need look no further than the Impact organization itself. Started in 2004, the conference has quickly grown to be the largest student run entrepreneurship conference in Canada. It has grown from a conference size of 150 held at the Univer-

sity of Waterloo, to being attended by 350 university and 150 high school students from across the country. This past conference was held at the Sheraton in downtown Toronto, with a Friday evening banquet at



the Harbour Westin Castle.

The two days were filled with different workshops and seminars intended to guide one's success as an entrepreneur. Not only did attendees learn about how companies and ideas get started and funded, they were taught important skills, such as negotiation, leadership techniques, networking, and how to make an effective sales pitch. Conference speakers themselves were successful entrepreneurs, eager to pass on the lessons they've learned from their experience. A question and answer period was held with a panel of CEOs from organizations such as ICICI Bank Canada, and MaRS Discovery District, on their views about entrepreneurship, leadership and innovation. Other notable speakers included Greg Brill, CEO of Infusion Development, and popular motivational speaker Dave Howlett of "Breaking Down Silos" fame.

Who Speaks at Impact

The conference keynote speakers have always been well recognized. For the 2004 conference, the featured speaker was Frank O'Dea, the founder of Second Cup. He spoke inspiringly about coming out of the depths of poverty to build Second Cup into the successful company that it is today, and about the numerous charities he has established over the years. In 2005, it was Harry Rosen, reflecting and giving lessons from 50 years experience of being an entrepreneur. Last year, Kendra Todd, the winner of the third season of the Donald Trump's reality television show *The Apprentice* was featured, fitting in well with the 2006 theme of the Impact Apprentice competition.

This year, the speakers were no different in terms of star power. Michael Lee-Chin, famous Canadian billionaire, entrepreneur, philanthropist, and named donor of the new Crystal at the Royal Ontario Museum spoke to a packed house at Friday night's banquet, receiving a standing ovation from delegates and industry leaders.

Focus on Social Entrepreneurship

While the conference was a great opportunity for business-oriented individuals interested in starting a company with the goal of making it to the big time, it also had something to offer. It showed another side of entrepreneurship, one that is not only about the bottom line. Entrepreneurs have the passion to persevere, to organize

and grow, and the will to make a difference through their actions.

Craig Kielburger, founder of Free the Children, famous activist, and the youngest ever member of the "Top 40 under 40"

fluent individuals such as Mother Teresa, Oprah and the United Nations. The impact and reach of his work was certainly not lost on any of the delegates.

During his talk, Craig focused on social entrepreneurship; and using the same entrepreneurial skills and mindset that for social change and equality. He spoke about the importance of social entrepreneurship in the changing world, the shifting paradigm for social initiatives, and the new model of development arising from the need to adapt old models of charity to a rapidly changing society.

There are many examples of social entrepreneurship today, and the impact is very real and relevant. Craig provided the examples of Participant Films, founded by former eBay President Jeffery Skoll produces socially responsible films such as *Syriana* and *An Inconvenient Truth*, the latter of which contributed in large part to the continued awareness about global warming, and Al Gore's Nobel Peace Prize win. Muhammad Yunus is the recipient of the 2006 Nobel Peace Prize, an economics professor and a social entrepreneur. He started the Grameen bank for microcredit loans, starting from a loan of \$27, and a financial institution that now helps millions of the poorest around the world break out of a cycle of poverty.

In the talk, the focus was on creating organizations that affect change based on the



started the organization at the young age of 12 with the aim of ending child labour. Craig has now built Free the Children into a global network of children helping each other through education, working with in-

triple bottom line of economic prosperity, social justice, and environmental sustainability. Craig's organizations have been featured on Oprah as well as MTV Canada. He has started a line of child labour



Impact LEADERSHIP CONFERENCE

free clothing brand “From Me to We” that donates half the profits to sustainable development. He has shown that it is possible to combine the positive impact of a charity with media savvy, using the connectedness of the global information network and a new business model for charities to create positive social change.

The Waterloo Connection

Given all these examples of traditional and social entrepreneurship, one might ask, how University of Waterloo engineers can get started. But, if there is anything that the conference has shown me, it is that we too can be a part of a force of change. I’m proud to say that the founder of the Impact organization is himself an Engineer from the University of Waterloo.

Impact was founded by Kunal Gupta, of 4A Software Engineering. He started the conference during his 1B term with nothing more than a vision and a handful of volunteers. The organization has grown tremendously over the past few years to comprise more than 10 separate initiatives.

While they made many mistakes from their humble beginnings and learned many les-

sons along the way, they have used them to continually improve the conference and the experience for delegates. Now, as the organization enters its fourth year, just like any entrepreneurial firm, it plans on innovating to improve the quality and reach of the organization.



sons along the way, they have used them to continually improve the conference and the experience for delegates. Now, as the organization enters its fourth year, just like any entrepreneurial firm, it plans on innovating to improve the quality and reach of the organization.

During our interview, I asked Kunal how he got the idea to start this conference. He emphasized its need and benefits, especially for UW Engineers, to supplement the classroom learning and co-op experience

technical skill set, but provides little exposure to anything else outside engineering. How do we leverage our academic experience and co-op employment to get ahead? That’s something that’s missing.”

When I asked Kunal about how he juggles the demands of school and running a conference such as this, his advice was to keep the bigger picture in mind. It is easy to get caught up in the short term activities, but one has to think about where they want to be in a few years, and what you need

to do to get there. The short term activities and issues will invariably come up and be taken care of, but to him, it’s important to keep the long term goal in mind.

The weekend has been convincing proof that yes, it is possible to start small and dream big, persevere through the little challenges with an entrepreneurial spirit. This year’s Impact Leadership Conference was an eye-opening experience, and I will be interested to see it improve, evolve, and innovate in the coming years!



BUSINESS

Imagination Takes Flight Entrepreneurship Column

DMITRI ARTAMONOV
3N COMPUTER

One of the challenges that face the student entrepreneur, especially the engineering student entrepreneur who has not had a lot of experience with business, is the creation of innovative ideas that are marketable. Oftentimes it is thought that finding a solution to a problem is the most difficult part of entrepreneurship, but I would say it is by far more difficult to find the right problem. You wouldn't want to pour your heart and soul in inventing a new wheel and then discover that nobody wants it within your lifetime, would you?

There are two approaches to the problem. One is the market research approach. Collect the statistical data on emerging trends and new markets that you can exploit, for example Gartner Research Reports from gartner.com or factiva.com to which the University of Waterloo has a membership subscription. The disadvantage to this is that a lot of new entrepreneurs can get into areas that they are not familiar with and do not make the correct business decisions due to a lack of experience.

The second and most popular approach for new entrepreneurs is to become your own customer. You already know whether or not something will work because you are going to be selling to people who are like you - you are your own target demographic. Your goal now becomes to keep coming up with new ideas that you think will do well. And you don't need focus groups to know whether an idea will work because you have the sufficient knowledge to criticize and reject a bad idea. For example, let's say that you are computer hardware geek and you were one of the first 100,000 geeks who modified their desktop case and put in a clear plastic window. You may come up with a new cooling system and you'll know that it works because you have your own community of friends that you can bounce ideas off, and because your intuition and experience

will tell you.

The last hurdle then, is how do you generate these new ideas in a field you know? Well, the best one would be a solution to a pain that people are willing to pay you money for. In the above example, you may invent a powerful case fan that is extremely silent and doesn't bother the user. However, in order to really break new ground you must be anticipative. Instead of the pain that exists now, think about what will be happening in the future that you can start working on today. Computers are getting hotter with every generation, and fans are the current technology. Maybe you'll come up with a new cooling system altogether that will be silent and will take away heat from the computers of the future. If you're really good you'll invent a way to use the excess heat. The famous idea guru Doug Hall, founder of the Eureka! Ranch Technologies company that helps companies develop new and innovative products, tells us to Fail Fast and Fail Cheap. Whatever the idea you start with, it's important to learn from its failure and try again. These are called the cycles of learning. The methods of failing fast and failing cheap are the building of cheap, functional prototypes to abuse and create marketing brochures containing product specifications that you can show to potential customers. This will give you physical and market feedback before you even begin to truly build idea. And then you will repeat the idea in another iteration, the key is to allow your concept to stay fluid until the potential customers say yes and so does your intuition. Then you commit to making it happen, and form a new venture.

In my next article I will be interviewing entrepreneurs who have not been in business for very long, and still have the memories of starting out fresh in their memories. If you have any specific questions to them, feel free to email me at dmitri@newventurepathways.org, and don't forget to check www.newventurepathways.org for new events!

How to Shop Smart Fair Trade Coffee at UW



TANEEM TALUKDAR
4A SYSTEMS DESIGN

When you buy regular brand coffee, you can't guarantee that the farmer who produces it gets a fair price.

The price of the coffee that you normally drink is dictated by unregulated commodity trading. Most of the revenue goes to middle men and 21 million farmers at the bottom of the chain receive a very small cut, often even taking a loss.

The good news is that you can help farmers by buying Fair Trade coffee.

Fair Trade certified coffee guarantees that the farmers who produce the coffee receive fair prices. The revenue is more equitably distributed, with a minimum sustainable portion that goes to the farmers. This stabilizes the lives of farmers and allows them to plan ahead, cut down on their loans, invest in machinery, send their children to school and generally leads to sustainable improvements in their quality of life.

Did you know that Fair Trade coffee is available all over campus, including the Engineering C&D? The map to the right shows all the places where you can get a cup.

How to Rent a Stock Investing Column

JEFFREY MCLARTY
4A MECHATRONICS

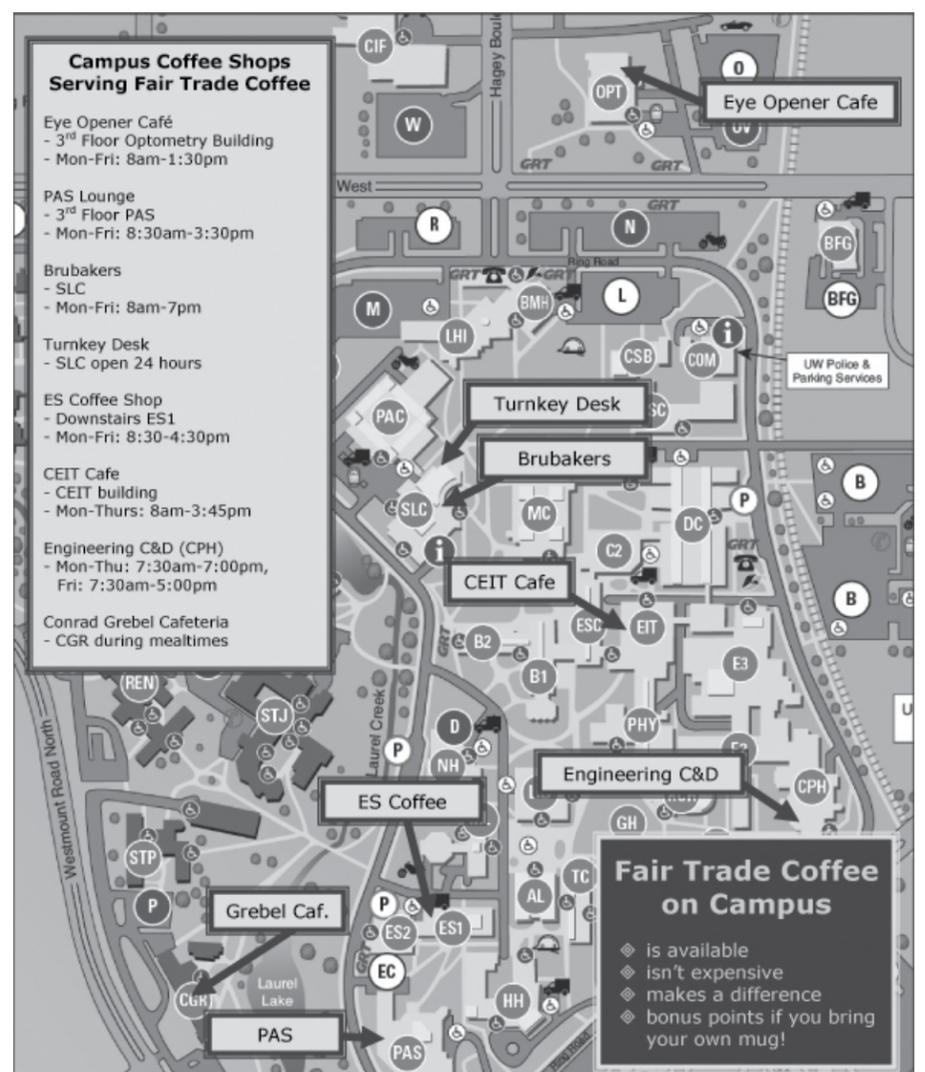
Everybody knows landlords make money renting to students and other people who generally do not want to commit to ownership. For the landlords, the great part is they rent out the rooms while the property goes up in value. Renting a stock works almost the same way, except it works more like the "rent to own scheme" that a car dealership offers. However, instead of a car going down in value, stocks go up. So, if you're going to own something, whether it's a house or a stock, you might as well rent it (or part of it) while you wait for it to increase in value. No matter how you look at it, the monthly income stream is great for the person holding the asset that is appreciating with time. This is a good opportunity to clarify which side of the word "renting" this article is referring to. A student rents a room; a landlord rents out a room. The investor is the one taking cash on a periodic basis, and the following is an example on how to turn a stock you don't mind holding into an asset yielding a monthly return.

Let's assume I am interested in investing in stock XYZ because I think it's cheap, at \$5. I buy 100, or \$500 worth of stock. I've done the math and have a price target in my head of \$7 in a year. That's 40% in a year, not bad. Warren Buffet would be jealous. By this logic if it were to increase to \$7 in two months, I'd be happy to sell it, because it would be overvalued (in my mind). Well, every day of the week, there are gamblers, traders and investors out there, willing to

bet a small amount of money that any given stock will go higher than a certain price. So, since I'm fine with selling for \$7 in two months, I rent them the rights to my stock at a higher price by selling them the option to buy it from me for \$7 in two months. For the sake of this example, let's say they are willing to pay \$0.30 per share for the right to buy it at \$7, in 2 months. There are two situations now: the stock stays under \$7, and I keep the stock and the \$0.30 per share, or \$30. The flip side is if it goes higher than \$7, I'm forced to sell it to them. So in the first situation I get \$30 on my \$500 investment, or 6% in two months. In the second I make $\$7 - \$5 = \$2$, and the \$0.30 is mine to keep, or 46% in two months. If I can do this 6 times per year, waiting for the stock to hit the \$7 target, I rake in an extra \$180 per year or 36%, just waiting to sell for \$7. If the stock actually goes to \$7, let's say in a year, I will turn a 40% gain ($\$5 \rightarrow \7) into a 76% return ($\$5 \rightarrow \$7 + (\$0.30 * 6 \text{ months})$).

The drawback to renting a stock is, if the stock goes to \$9, the investor doesn't get to keep the profit past \$7. One more point of interest is if the stock goes down temporarily, on its thunderbolt-like path heading north-by-north-east towards \$7, the investor can keep renting the stock every month to cushion the losses.

I blog about stocks and option strategies at <http://blog.bluemooat.com>. I'm also offering free seminars introducing options and advanced option strategies for beginners. To sign up, go to <http://blog.bluemooat.com>, click seminars and "sign up" online.



Waterloo Professors on Alberta Conference

Annual Canadian Chemical Engineering Conference Held in Edmonton, Oct. 28 – 31

DR. BILL EPLING
ASSOCIATE PROFESSOR,
CHEMICAL ENGINEERING

The annual CSCHE meeting is a great opportunity to catch up on the cutting edge chemical engineering happenings in Canada. Although the country is quite large, the chemical engineering community is close. This gives us a good venue to catch up with colleagues and meet those working in similar research areas. In Canada, very little vehicle emissions work is done, but this conference gives me the opportunity to catch up with the few who do. This includes collaborating with fellow engineers at the University of Alberta and the University of Calgary, making our research better, more relevant and more fulfilling. We are starting work on reducing NOX emissions from lean-burn engines, which will increase vehicle fuel economy, while simultaneously decreasing NOX emissions and, for the first time from vehicles, CO2 emissions as well. It is also a great place for our graduate students to present their work, which is always exciting for them, plus it gives them a chance to see all the other great work going on across Canada by their colleagues. Overall, it's a great time for exchanging research ideas and results while being exposed to the new research going on across Canada.



DR. BILL ANDERSON
PROFESSOR & DIRECTOR
OF ADMISSIONS,
CHEMICAL ENGINEERING

The plenary lecture on "Oilsands: Past, Present and Future" (by J.E. Carter, former President of Syncrude) and the keynote lecture on "Environmental Stewardship for Engineers" (by Bruce Peachey) reminded me and reinforced the notion that water supply is an increasingly critical issue throughout much of the world. Graduating engineering students are going to have to meet a variety of related challenges, including: protecting existing resources using improved wastewater treatment technologies; minimizing water use through smarter design and operation; and developing improved techniques for internal water re-use and applications of "zero discharge" principles.

DR. TING TSUI
ASSOCIATE PROFESSOR,
CHEMICAL ENGINEERING

One of the most exciting nanotechnology researches is in the development of e-paper and other flexible electronics. Professor Ozin (U of Toronto) presented an invited talk in the "P-Ink" technology, which uses nanocomposites to produce low-power flexible photonic devices. Each pixel consists of colloidal photonic

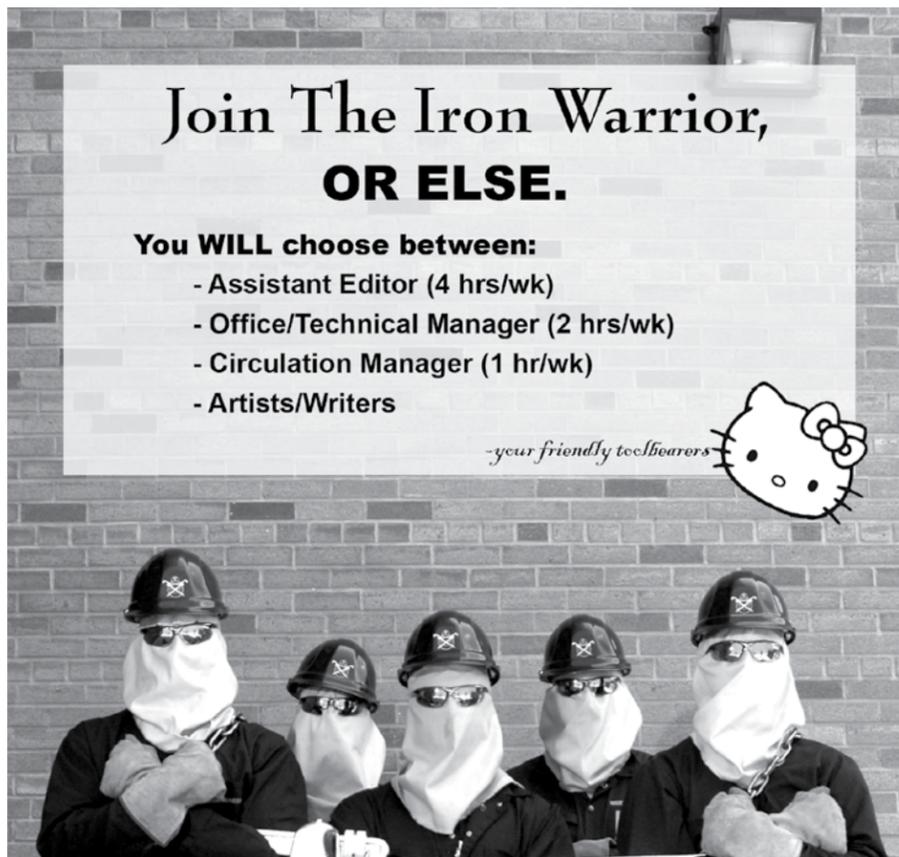
crystals embedded in electro-active metallo-polymer gel. Applied electric field can be used to control crystal lattice dimension by shrinking or swelling the gel. This produces a range of Bragg diffracted colors on the display. Nanometer scale devices like this can potentially replace paper and billboards. This is another example how the nanotechnology evolution can affect the simplest aspect of our daily life.

Join The Iron Warrior, OR ELSE.

You WILL choose between:

- Assistant Editor (4 hrs/wk)
- Office/Technical Manager (2 hrs/wk)
- Circulation Manager (1 hr/wk)
- Artists/Writers

-your friendly teelbearers-



Sandford Fleming Foundation

Debate Results

The Sandford Fleming Foundation final debate was held on November 2.

Congratulations to the winning team of Uzair Cutani and Keith Peiris of Nanotechnology Engineering, and runners-up Alyssa Mohina and Andrew Ostier of Civil Engineering. The winning team received \$300 each, and the runner-up team received \$250 each.



Pictured here from left to right are the runners-up Alyssa Mohina and Andrew Ostier of Civil Engineering and the winning team of Uzair Cutani and Keith Peiris of Nanotechnology Engineering

Funding for these awards comes from engineering student contributions and depends on them for continuation

Canadian Undergraduate Technology Conference

January 10 - 12, 2008



register @ www.cutc.ca

Get Motivated!
 Get Educated!
 Get Connected!
 Get Enlightened!



600 Students
 50 Events
 25 Speakers
 5 Keynotes



Half Formal, Completely Amazing!

JACLYN KONZELMANN
2B MECHATRONICS

This term's semi-formal took place last Thursday at the KW Granite Club, with 70 people attending dinner and another 60 people joining in for the dance. The night turned out to be a huge success!

It all started out with the arrival of the dinner guests who were provided with beads and masks at the door to celebrate this term's theme 'Mardi Gras'. And of course we can't forget some of the amazing outfits that were seen that evening: gorgeous dresses, guys in suits, and a matching couple decked out in gear not fit for even our grandparents to wear.

'Charities' was around selling corsages to all the cute couples and anyone else who felt like wearing a rose. At 7:30 a delicious dinner of chicken parmesan and vegetarian lasagna was entirely consumed by what can only be described as a group of starving students.

After everyone had time to digest, the dance picked up and the rest of the guests made their arrival, once again decked out in the customary beads and masks. At around 10 o'clock the tool made its ap-

pearance and was welcomed by some spectacular dance moves on the floor. Yet as all good things must come to an end, this term's semi-formal drew to a close at 1 o'clock, thus ending another amazing night of dinner, dancing and dressing up. Thanks to everyone who came out!



The Semi-Formal's organizers put on a great event for all

The SCavenger hUNT Show

CAITLIN HO
2A MECHANICAL

The most anticipated engineering event has finally come! This term's Engineering SCavenger hUNT is taking place November 16th to 17th. For anyone who is looking to have a great time, meet new people and create lasting memories, this year's Hunt promises to deliver the most entertaining 24 hours of your life! Sign up as a team or individually. Traditionally, the SCavenger hUNT is a 24 hour marathon filled with daring and challenging activities. Engineering classes usually sign up as a team; however



the Hunt is open to all faculties. Don't have a team? Sign up individually and we can find you a team! Registration fees are \$30 for engineering teams and \$50 for non-engineering teams. Fees are due November 16 at noon. P**5 points will be awarded for this event; each participating team receives 100 points! In addition, the winning team will receive 1000 points, 500 for 2nd place and 250 for 3rd. This year's theme of "The SCavenger hUNT Show" will be just as addictive and entertaining as The Office! For more information and registration, please drop us a line at eng.scavengerhunt@gmail.com

How was MOT? I Don't Quite Remember ...

THE IRON WARRIOR
NEWS BUREAU

Judging by the photos that I took, MOT took place on Nov. 2nd in POETS with a prehistoric theme. Attendance seems to be good, with a number of people showing up in costume. Many drinks were consumed, and the event was enjoyed by all, or so the story goes.

As part of the celebrations surrounding the 40th anniversary of The Tool, Jim Pike (EngSoc president at the time of The Tool's purchase) was seen to be in attendance and gave a brief speech on his feelings, possibly regarding the evolution of the tool's role within Waterloo Engineering. Several attendees also wore birthday hats in celebration, including the Toolbearers, as shown.



The Iceman Rideth

The Adventures of Dangerman



Dearest Reader,

Did you miss me? I missed you... Seriously baby, don't be like that, you know I love you.

You know I would never wilfully forget to bring you the most daring adventures ever conceived by man or lady-folk. So what was it, you might be asking yourself, that prevented me from throwing a few paragraphs together for your lack-of-entertainment last week? Was it the wiles of a beautiful woman? Did I get amnesia and go on a killing spree like some other fictional spies? Did I save a puppy from drowning...inside a burning building!? Damn right I did!

But that was last week, and a new week demands a new adventure. So without further ado, and with much making-up to do...

To begin with... it's bloody cold out!

In the summer of summer that was August and in an immaculate stupidity that only someone named Dangerman can muster, I resolved that for this work-term it might be fun to use a bike to get to work in the mornings. This madness was inspired by an effort to save on expenses and improve my general health, which since university had featured a diet consisting too much of campus pizza and exercise units in the negative...shudder.

So now it's November, the "winter of my discontent", I'm in the best shape of my university life and I'm freezing my miserable ass off. In the immortal words of Bruce Willis, "I am a Meat Popsicle". Every morning I drag myself out of my spine-damaging futon to mummify myself in scarves. Each drop in Celsius is met with a new layer of clothing. I have passed the point of, "critical flannel". I am Al Borland from Home Improvement...on wheels.

Worse than all this however, is a realization that fills me with the most terrible dread...I've begun to talk like a recreational cyclist.

There are people in this world that you

just want to punch. They inspire violence. This demographic is different for everyone, but may typically include conservatives, people who comment on YouTube, people affiliated with PDEng, people who are just about to eat something, and recreational cyclists who like to talk about their "rides".

Don't get me wrong, the Tour de France is pretty awesome, I like the coloured shirts bit, I can even live with the unflatteringly tight garments and obnoxious-looking head gear. But when someone takes up a half hour of my life to fill me in on every detail of their ride, you better be out of arms reach. The only thing I want to hear about is you crashing and hurting yourself.

And yet... I do it too! I'll stand there oblivious to my own horrendously dull narrative and tell some poor bastard about every inch of the 9 km I ride every morning and evening. What I smelled, how many hills there were, how many times I almost got hit by cars, how many old ladies I kicked over for walking too slowly on the side walk (they're asking for it... just look at 'em!).

I stand there and I'll talk about my ride, and I can't stop myself! Now I'm left wondering how many other people I've persecuted unjustly simply because I found them irritating. How hard would it have been for me to just extend a little tolerance and empathy where it was needed... Maybe this freezing cold ride of mine is more than just another mistake in that hilarious line of errors that seems to comprise my life... Maybe it's penitence.

As one of my favourite comedians Jack Handey once wrote:

"Before you criticize someone, you should walk a mile in their shoes. That way when you criticize them, you're a mile away from them and you've got their shoes."

So till next time, if you've been giving someone a hard time, maybe ease up a little and try to understand them instead. A little compassion can go a long way in this world.

Sincerely,

Dangerman

Eric.dangerman@gmail.com

xkcd: Romance, Sarcasm, and Math

KAREN AU

1ST YEAR B. ED. YORK UNIVERSITY

The day was hot and wasn't the greatest for alleviating the smell of B.O, but nevertheless, hardcore xkcd fans migrated over to 42.39561, -71.13051 on 2007-09-23 at 14:38:00 to pay homage to the one and only Randall Monroe. In other words, a humble little park in Cambridge, MA – on September 23, 2007 at approximately 2:38pm – was flooded with people who read the infamous online comic entitled "xkcd: a webcomic of romance, sarcasm, math, and language." (<http://www.xkcd.com/>). I, a Torontonion under the false pretense of visiting a friend in Boston that weekend (kidding), was among one of those lucky few who were able to catch a glimpse of Monroe himself, the writer of xkcd, who managed to emblazon the park signs with his own name (see: photo!) and essentially called the park his own. We couldn't tell you the original name of the park. Couldn't tell you how many people showed up either, but there were enough fans to fill the park itself, and enough fans to overwhelm

Monroe with their Guitar Hero guitars and webcomic merchandise, in hopes that their hero would be so kind as to scribble an autograph on their items.

I always find it so interesting when hoards of young people gather around for something as cultish as xkcd. Right away, from the subway ride over to Cambridge, I began to wonder if anyone on the subway car with me was on their way to Monroe Park. And indeed there were: geeky-looking intellectual types were sporting Monroe's green shirts – you know, the ones with the witty quotations stretched on the chest and the clever graphs with pop culture references stamped at the back – and we all bolted off the car together at Davis Station and followed the signs like sheep to get to Monroe Park. We got there just in time to catch a glimpse of a fan holding a velociraptor toy and, of course, just in time for the countdown to 2:38pm, after which the crowd began to chant Monroe's name in an attempt to get him to reveal himself – which he did, amidst a line of buddies bringing in whiteboards and sharpies so that his fans could leave a mark some-

where. And we all climbed up and around the fences, jungle gyms, swings, and basketball nets just to take a photo of our xkcd idol. It was awesome.

If you're interested in the follow-up forum on xkcd.com, type in this link into your browser: <http://forums.xkcd.com/viewtopic.php?f=16&t=12871>. Have fun!

Whining Music Still Makes Me Cry



Album: No Really, I'm Fine

Artist: The Spill Canvas

Team South Dakota started with similar roots like Dashboard, where Nick Thomas wrote some solo songs before forming a full band. Unlike Dashboard, their transition to electric guitars was much smoother, and garnered a pretty strong following online. Their latest album is their best yet, improving on One Fell Swoop by keeping most of the complex lyrics but improving in the execution.

In the past, most of TSC's hits have been pretty non-radio friendly. Songs like

The Tide and All Hail the Heartbreaker, do not make for very easy listening. This time around, the best songs have a nice beat, where you can kind of dance to it. All Over You, and The Truth are the best examples of this. The album does slow down at points, but they're spaced in between faster songs to provide a balance. These slow songs don't bore you to death either. Saved, for instance, builds to a climax with a quick guitar solo that you'll be sure to turn up when studying.

I can't find too many faults with this album. There seem to be a few filler songs, such as Low Fidelity and Bleed, Everyone's Doing It. Well ... they're probably not filler, I just don't like them at all.

Here's a shortlist of songs to listen to:

- All Over You
- Appreciation and the Bomb
- Connect the Dots

Upcoming Events Calendar

Monday November 12	Tuesday November 13	Wednesday November 14	Thursday November 15	Friday November 16	Saturday November 17	Sunday November 18	 Check out up-to-the-day event postings on the EngSoc website at engsoc.uwaterloo.ca
IW Meeting (5:30-6:30 POETS)	Knitting workshop (11:30-12:30 CPH Foyer) WIE Powderpuff Football	GradComm Pizza Class rep workshops (5:00) & Engsoc Meeting (5:30) at CPH 3385		Pancake Breakfast (8:00 CPH Foyer) SCUNT (12:00) EngPlay	EngPlay		
Monday November 19	Tuesday November 20	Wednesday November 21	Thursday November 22	Friday November 23	Saturday November 24	Sunday November 25	
IW Meeting (5:30-6:30 POETS) TalEng		Genius Bowl		Jazz Band Performance	Pubgolf		
Monday November 26	Tuesday November 27	Wednesday November 28	Thursday November 29	Friday November 30	Saturday December 1	Sunday December 2	
IW Meeting (5:30-6:30 POETS)	Christmas Light Sculptures Workshop (11:30 - 12:30)	Class rep workshops (5:00) & Engsoc Meeting (5:30) at CPH 3385		EOT (9:00) Feel Good Day (8:00 - 10:00)			

Rejected Jobs Seeking Good Home

JON GRIEMAN

SPECIAL JOBMINE CORRESPONDENT

The continuous phase is now in full swing, and as time goes by you might begin to be tempted by jobs with less than stellar descriptions. Don't worry though, JobMine's staff are always looking out for your better interests (and the University's liability budget) by ensuring that really horrid jobs such as these don't make it in. Our source deep within the bowels of Career Services once again risked life and limb to send us this list of jobs too vile for JobMine.

Disclaimer: We continue to claim that this is a lighthearted parody. We love JobMine, and all the jobs posted to it are of stellar quality and would be a credit to any resume.

Manual Photo Copier
Ontario Mega Finance Group (OMFG)

Qualifications:

- Freehand drawing training
- High degree of accuracy
- Immunity to tedium
- Ability to work in a dynamic environment
- Junior/Intermediate

OMFG is seeking a junior or intermediate student for clerical work in one of our departments. Recent humidity issues in our building have caused a breakdown of our photo copiers, and unfortunately we have no budget for repairs. Fortunately for you, we do have a hiring budget for co-op students! Duties include re-writing and manually copying of office documents and diagrams. Pay will be docked for errors. Applicants must supply their own pens.

Temporary Replacement for Satan Hell Llc.

Qualifications:

- Dedicated and hard worker
- Good communication skills
- Willing to learn on the job and always open to new experiences
- Excellent professional ethics
- Looking for 3-5 years sales experience

In order that our CEO and President be given time off for an extended vacation, Hell Llc. is seeking a temporary employee to take on his role. This job is aimed at a senior student with previous leadership experience looking to gain further on-the-job training. Duties include overseeing product production (misery and evil) as well as bargaining and formalization of binding legal contracts. Successful applicants will have excellent communication and sales skills, a positive attitude and a desire to see large corporate growth. We are an equal opportunity employer, and seek individuals regardless of race or creed.

Industrial Saboteur, Party Organizer
Undisclosed right wing political party

Qualifications:

- Hatred for progress
- Senior Mechatronic or Mechanical Engineering student
- Must provide own sledgehammer, torch and pitchfork

Has struggling through classes given you a passionate hatred for technology in all forms? Do you start to twitch at the site of industrial machinery? Have we got a job for you! Due to generous donations and fundraising efforts, the [edited to remove all references to the Canadian Coalition of Fundamentalists] is looking for young students to join in our anti-technologist neo-Luddite political movement as a youth organizer and demonstrator. Individuals with knowledge related to the layout and security of large manufacturing or technology companies are preferred. Please note that a NDA must be signed prior to your employment that will forbid you from mentioning the name of the political party concerned.

Enough is Enough: Tellin' it Like it is after Five Years of This

RIP JANG

RESIDENT POET (AND
GRADUATE STUDENT)

It's time to do some real engineering and I am not wearing the ring by the way.

The ring is only mandatory for military engineers to assure the weapons are made safely. Chemical weapons are off-limits however because chemical engineers have jobs already, and the planet is doing fine thanks for asking.

Fruit flavored cola almost as expensive as the real thing, you are paying for the packaging. Speaking of packaging, there is more to a human being than a revealing top and a nice synthetic smell.

A green wallpaper does not make you an environmentalist and will never damp the forces caused by earthquakes. You fall down on grass nothing happens to you you fall down on 35 MPa concrete you are going to break your bones. Also trees are more tolerable to changes and that is why they don't break when subjected to displacement, and hence their geometry can vary dramatically from one to another, something intolerable in modern societies. They even wear a uniform when they go drinking let alone visiting foreign countries. We have to unify you in nature but assign to you your designated way of thinking. You can make a game out of it and practice your shooting skills.

You subject a tree to a large enough force it will move away from you, but civil laws are stiff and we are all treated equally, more equally than before anyways. Not many years ago there were laws on slavery, and it's foolish to think racism no longer exists. There is at least one girl from a 3rd world country who is still afraid to speak her mother tongue in the hallways of engineering, you see she has been in Canada since she was 3 and can speak English with no accent you see?

Let talk about work reports now:

First of all by making it work you take the fun away from it. Let them figure it out on their own, and learn by failing not always winning. It used to take people 40 days to write 100 words, not a minimum of 2000 about your work term, where you did mostly filing. University education reduced to a typing practice, maybe one day they will have something to say.... I don't

think so!

At UW, sometimes not always, you get marked based on knowing how to solve a problem the teacher has already solved, and conforming. But guess what Mr. We-Care-About-Employability? People who solve classic problems like designing a steel frame get paid much lower than those who can solve any problem you shoot at them, like figuring out the whole music theory on their own, teach it and even make money.

Let's focus on having fun. Isn't that the ultimate objective of applied science? Those with power are usually more open minded and also more artistic you see? I party hard but work even harder, the two are the factors of wealth by the way, work and desire for spending. And let me tell you something about the importance of having fun:

Van Gogh used to go for a walk, away from people to observe nature and really did painting for fun, not for marks. Marks are appreciated the most. Marks and something fake to put on you resume like a management science option.

Some graduate students have office hours and feel like they need to be behind their computers all day. What is to be researched in 5' X 5' X 7' space. I know! They are trying to find the answer to their research on Google, since they are so used to copying!!!! Yes Copying..... Copying is very different from thinking. Does anybody else see that?

A photographer knows there are many different angles to look at an object. At Waterloo engineering, in some classes of course not all, you copy straight from the board. Let alone learning about different theories that explain the same problem, not even different books about the same theory, not even choose the chapter of one book that you find important, not even get a set of course notes that pick these chapters for you, not even give the notes so they can read it at the speed they desire, but you copy straight from the board all doing the same thing and "learning" at the same speed, same words, same hand writing. No wonder they wear a uniform when they go on their crawl, no wonder they are fat, we have forced them to sit down and copy and feed them chocolate. What else could you expect from this setting?

Editor-in-Chief
Fingerprint Publications

Qualifications:

- Diplomacy, diplomacy, diplomacy
- Single-minded obsession with perfection
- Willing to learn everything on the job
- Senior Engineering student
- Engineering newspaper experience preferred

The staff of the Fingerprint newspaper, the largest publication on campus, is planning to overthrow the current Editor-in-Chief (EIC). We are looking for an individual to replace the current EIC in an

inkless coup and finally lead Fingerprint into the 21st century.

Impressed by alternative newspapers of late, Fingerprint is seeking and restricting itself to engineering students. In this respect we are not an equal opportunities employer and will discriminate against non-engineers, who are highly discouraged from applying.

No particular skill or experience is required, save for a revolutionary spirit and an obsessive compulsive personality.

Engineering Society Directorships

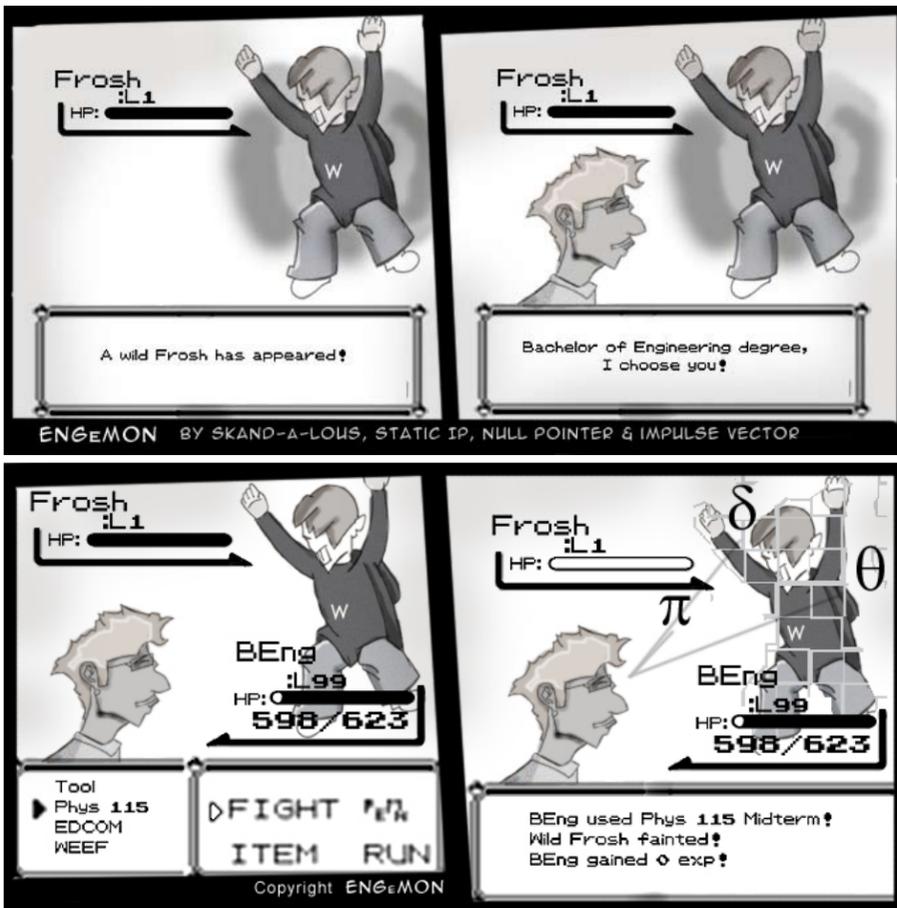
**Applications Open
Nov 14-30**



**apply online at
engsoc.uwaterloo.ca**

ENGEMON

SKANDA SHRIDHAR
1A ELECTRICAL



Send your submissions for this issue's photo (above) to
iwarrior@engmail.uwaterloo.ca.

The best submission will be printed in the next issue and the winner will be awarded with a cash prize!

Last Issue's Winner

Congratulations to Victoria Hilborn of 4A Environmental, who submitted the winning caption for last issue's photo, seen above. Victoria was the happy recipient of a \$10 prize.



"Damn. I knew I should have brought a calculator."

profQuotes

"The trapezoidal method of approximating integration was probably not named after a guy named trapezoid."

- R. Andre, MATH 118

"The outside world is an evil place for signals."

- W. Loucks, ECE 324

"I can't draw all these funny Greek characters - I can barely pronounce them!"

- D. Miller, ECE 380

"If you sit in the back row you have to have exceptionally good eyesight, or opera glasses"

- J. Medley, ME 321

"Closed loop stability is absolutely essential - like chocolate for me, cigarettes and liquor for others. That chocolate sale at Farah Foods is still going on by the way!"

- D. Miller, ECE 380

"We have to change the subscripts to protect the innocent... or the guilty."

- J. Barby, ECE 332

"The apathy used to bother me, but I just don't care anymore." - D. Miller, ECE 380 (with 15 people in class during midterm week)

"Oh, yes!" [while drawing a state diagram]

- Corbin, ME 340

The Iron Inquisition

we ask. you answer.

"How do you relieve stress?"

Ryda Peung and Sophia Follick, 4A Chemical



Derek Shaw
2B Software

"Calculus!!!"



Aleh Smalyanau
M.A.Sc. Candidate, ECE

"In Canada, no stress at all! But back in Belarus, tons of stress; hence getting drunk is the answer!."



Henry Bian and Josh Walker
4A Chemical

"Killing each other in video games?"



Candice King and Cassandra Tipping
Social Development 1st & 2nd Year

"Go shopping!!!!.....What else???"



Sam Mikheevskiy
Ph.D. Candidate, Mechanical

"Stress?...What stress?"