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<http://iwarrior.uwaterloo.ca>

Waterloo Shines in Troubled Times Shared Goals for the Region, City and University

**MICHELLE CROAL &
JONHA SHIN**
3A CHEMICAL & 2B MANAGEMENT

From a student's perspective, Waterloo may not be the most exciting place in the world. There aren't that many places to visit, we don't have high sky scrapers like Toronto, and even our university campus looks like mostly bleak concrete. Regardless, all of us decided to come to University of Waterloo for reasons that some are able to justify, some not.

Lately though, the Waterloo region, much like the rest of the world trying to tough out today's economic storm, has been hit hard with various problems. The Globe and Mail states that due to the two largest U.S. auto makers facing a huge crisis, "more than 117,000 manufacturing jobs in Canada [have been eliminated] in just past 12 months." Close to 3400 jobs have disappeared recently in the Waterloo-Kitchener-Cambridge area alone, and many plants have already been shut down or are facing an inevitable doom in the near future.

Despite these hardships, Waterloo stands tall and continues to be a leader in the market. With big industries such as Research In Motion and Open Text Corp located right next to our university, our reputation as an innovation and technology driven city and university, is recognized not only within Canada but by companies around the world.

How is this possible? Perhaps it is because of the culture the Waterloo region was built upon. Back in the 1800s the hard-working Mennonites laid down the building blocks for the futures generations to come. In a community that is older than Canada itself, generations of change-embracing families have been involved with culture, community and

development. The Kitchener-Waterloo region, including Cambridge, has long been a manufacturing centre in Ontario, and with the growing presence of insurance companies such as Manulife Financial shows continued diversification.

Tom Jenkins, Chief Strategy Officer of local high-tech company Open Text Corp, describes how the unique mix business, government and educational institutions lead to the success of the region. He credits it to a distinct environment of respect for entrepreneurs and their ideas. The community also is "action-oriented", working to implement changes and not just sit in unending discussion.

What role did the University of Waterloo have in all this? Co-op co-op co-op! By building a university with a practical and problem solving focus, graduates with up to two years of relevant experience apply that directly back into their full-time jobs, some locally and many globally. Another crucial decision in the early processes of the university was to allow researchers the intellectual property rights for their projects. This allowed

for hundreds of spin-off companies to develop in the region.

Furthermore, the University of Waterloo supplied 400 acres of land to the Region of Waterloo – forming what is now the Research and Technology Park just north of campus. From the \$13 million from federal and provincial governments and almost \$7 million from the Region itself, facilities such as the Accelerator Centre act as "incubation centres" for start-ups from the University and private research labs. With a global move away from manufacturing in the near future, innovation and technology will be the driving engine of Canada, putting the University of Waterloo and the Region of Waterloo in a prime position to be the leaders of the future. University leaders have long argued for a move to research and development, and this focus needs to be expanded to government and industry levels. In a world where innovation is on an instantaneous demand, university students need to be prepared. That is what the leaders here at UW are trying to implement at the graduate and undergraduate levels, especially when you consider the efforts of Vision 2010 and Campaign Waterloo.

The Perimeter Institute for Theoretical Physics, while independent from

the University of Waterloo is yet another example of scientific excellence in our community. Resident and visiting researchers from around the world collaborate projects in cosmology, particle physics and string theory to name a few. Between PI, the Institute of Quantum Computing (IQC) and the Waterloo Institute for Nanotechnology (WIN), the community of Waterloo has a strong lead in Canadian and international science.

Extensive ties between the university, the community and the region have made this city what it is today, and give the promise of growth, strength and adaptability to weather these tougher economic times. While these changes are directed by presidents, mayors and other officials, it is critical that undergraduate students involve themselves in these changes. Whether by applying skill sets from your education, or by voicing concerns and directions for your community, students now play a crucial role in the innovation and design of the future.

The main lessons to be learned from the Waterloo Region are these:

1. Be Entrepreneurial
2. Innovate
3. Network
4. Build on strength
5. Diversify
6. Attract smart people

Hopefully, in the years to come, other communities can learn from these strengths to overcome economic stress and change the focus of global industry.



Stuart Pearson

Perimeter Institute at night, one of Waterloo's beacons of knowledge and innovation



Stuart Pearson

Barrels from the old Seagram Distillery are an iconic reminder of Waterloo's past

Letter from the Editor



**MICHELLE
CROAL**
EDITOR-IN-CHIEF

It's been a long road to the end (or rather, passed in a blink for too many of us), but by the time this paper comes out, we'll only have 4 days left of classes! Where on earth did the term go? Anyone have plans for August that don't involve socks, pants and permanently wearing a hoodie at the "height of summer"?

Very, very soon we here in E2 2349A will be working on the FROSH ISSUE 2009! This means we'll need contributions from student teams, students in each discipline (program descriptions), Orientation Huges (Frosh group descriptions), blurbs about campus and engineering life and other topics. The deadline for this will be August 14th, 2009 – so write your exams then write for Iron Warrior! (I will remind you again soon, but keep it in mind).

Important Announcement! There's a whiteboard in our office with our list of things to do after classes: including going to the crepe place and suckering some unassuming literate student into being the next EIC... And can I have a big drum roll please! The Editor-in-Chief for Winter 2010 will be Amrita Yasin! She's been a big help with layout this term, and I think she'll be up to the job. I seriously recommend getting staff phone numbers at the start of term, Amrita – to better hunt down your minions staff on distribution days... As for me, my time here is coming to end (minus some last minute things to finish up). It's been a good term- hard and stressful, but good and I hope that my management of *The Iron Warrior* this term has left you informed, amused or inspired (or any combination thereof). And now I present to you: my last editorial topic!! Enjoy.

The other day, I was surfing around on BBC News looking for topics to bring up in my IW staff meeting, and I noticed a disconcerting headline: '15 Year High' for Rhino Poaching. The article goes on to outline how rhino killings have increased significantly in southern Africa in recent years, as findings by the World Wildlife Fund indicate. The reason I thought this was surprising is that while illegal poaching and endangered species were hot topics of the 90s, it seems that they have fallen out of common discussion in the last decade. Don't get me wrong, environmentalism is still a hotly debated topic, but the focus seems to have moved more towards global climate change and personal "green" status symbols than those animals that share our planet.

Primates are among the most threatened, with up to one third of all primate species facing extinction, due to threats such as over-hunting and deforestation. Marine turtles can live up to 100 years if they survive illegal fishing and being

trapped in trawling nets. Despite this, toxic chemicals such as PCB can bioaccumulate in their bodies and be passed onto the next generation. Elephants and rhinos have long been the focus of conservation efforts in Africa, namely to reduce species loss due to ivory poaching, conflict with humans and even as a food source. However, these are examples of "large" species – it's easy to see that a creature is going missing when it's the size of a car to start with! What about those animals that are smaller and harder to see in the first place? Birds, amphibians and insects can too face extinction when their habitats are destroyed, competing species are introduced (accidentally or intentionally) or through conflict with humans. It's hard to think of mosquitoes or cockroaches going extinct, but we were just chatting the other day about ladybugs. Even these beloved insects from our childhood seem affected by human impact, as introduced species outnumber native ones and they bite too! There is even a project in California dedicated to tracking and promoting ladybug conservation, believe it or not! (www.lostladybug.org)

Amphibians tend to be considered slimy or disgusting, but up to half of 6000 beautiful and diverse species are under threat,



Virginia Herpetological Society

The spotted turtle, *Clemmys guttata*, is one of many threatened species in Ontario

due to their sensitivities to their environmental relationships (consider water pH and contamination) and fungal diseases. Researchers in South America describe how mass migrations of thousands of frogs used to be common, whereas now counting a dozen of certain species is considered lucky.

Hundreds of conservation groups exist, dedicated to different groups of animals and ecosystems the world over, but their efforts will be in vain if public focus and attention continue to concentrate solely on other environmental issues. Media and consumer attention has diverted to "being green" and energy reduction, both of which are valid causes, but I see no point in saving the planet's climate without saving its diversity and variety. Taking things to extreme, in 50 or 100 years, without intervention and a changing of attitudes, our forests and oceans will without a doubt become barren and monoculture. In the same National Geographic

article about the frogs, it's mentioned that biodiversity losses have reached levels not seen since the end of the Cretaceous Period, 65 million years ago. That puts human destruction on the same scale as asteroids! (Or rather, your preferred and accepted method of dinosaur extinct-i-fication...)

Speaking of monoculture, the strength that biodiversity provides to an ecosystem is indisputable. Fields of genetically modified crops have advantages for a certain engineered aspect, but when attacked by a pathogen or pest, the entire

crop can fail to adapt, causing significant product loss. Diverse and evolving species usually have a competitive and adaptive advantage to changing threats and environmental factors (within limits- the demands placed by modern society on many natural ecosystems are simply too much to allow recovery within short term time scales).

We like to say that "We are alone in the universe," and yet in our hearts we hope we are not. What many people fail to include in this equation is that our planet is alone and singular not just because of the existence of a dominant and (mostly) intelligent species, but the existence and diversity of more than a million living types of creatures. Where else in the endless distance of the universe have we found that? Certainly not on the moon... What would the future historians think of us if we failed to stop the destruction caused by our race?

What can you do to help? As individuals, you can join or support conservation groups in your area, for a specific ecosystem, or for an animal or your choice. Be sure to research the group before donating significant amounts of money, as in many cases mismanagement or a lack of transparency can lead to only a small percentage of your donated funding reaching the actual conservation projects. As engineers, take into account species at risk that may be affected by your construction project, chemical plant or field work, and implement actions accordingly to reduce your company's impact on fragile ecosystems. Consider that endangered species need care not only in Africa or South Asia, but right here in Ontario. The spotted turtle, juniper sedge and the monarch butterfly are examples of species that are listed as endangered, threatened or of special concern (Species At Risk in Ontario, MNR). Understand the differences in levels of risk: special concern (may become threatened without further action), threatened, endangered (at high risk of extinction), extirpated (is no longer found in a certain region, but possibly in others) and extinct (no living members of that species remain). This is the only planet we've got, but remember that the creatures can't leave either...

Where else in the endless distance of the universe have we found the diversity of life as on our own planet?

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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

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

All submissions, unless otherwise stated, become the property of The Iron Warrior, which reserves the right to refuse publication of material which it deems unsuitable. The Iron Warrior also reserves the right to edit grammar, spelling and text that do not meet university standards. Authors will be notified of any major changes that may be required. The Iron Warrior is directed by an Advisory Board, consisting of members from the Engineering Society executives, editorial staff and student-at-large representatives. Mail should be addressed to The Iron Warrior, Engineering Society, E2 2349A, University of Waterloo, Waterloo, Ontario, N2L 3G1. Our phone number is (519) 888-4567 x32693. Our fax number is (519) 725-4872. E-mail can be sent to iwarrior@engmail.uwaterloo.ca

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Friday, August 14th, at 6:00pm
Publication for Orientation Week, September 2009
Send your submissions to iwarrior@engmail.uwaterloo.ca

With Respect To Time Charity Gig!

ERIN MATHESON
1T CHEMICAL

Hey everyone, it's that time of the term again! Your local engineering jazz band is hosting its term-ly charity gig. But this time around, it's both new and improved. This term, we're switching up facilities, so we won't be playing at Conrad Grebel. Instead, we'll be playing at the Bandstand in Waterloo Park (fingers crossed for good weather).

As if that wasn't good enough, you can come on out to listen to some great music in the park, for free! That's right, FREE CONCERT! It is a charity gig though, so we will be collecting dona-

tions. This term we're sending all our donations to the local Food Bank, a really great cause, so don't forget your donations. Any amount is appreciated!

So mark your calendars for August 1st at 1:30pm. Yes, we realize this is right before exams start up, but why not take a short study break to listen to some great music? We've got some awesome new charts lined up, along with some old WRTT classics (I've been hearing some whispers about Gospel John). So tell all your friends and come on out for some awesome jazz in the park!

Much Love,
-WRTT

Ready for a Co-op With RIM?

WILL BUCHOLTZ
RIM CAMPUS AMBASSADOR

Imagine having the use of a BlackBerry® smartphone to complete your co-op work. Yes, actual work that challenges you and offers the opportunity for a dynamic and rewarding co-op placement. RIM is looking for qualified students for four, eight, twelve and sixteen month co-op terms.

With the economy struggling to keep quality jobs, RIM is still growing! RIM is a leading designer, manufacturer and marketer of innovative solutions for the worldwide mobile communications market. RIM was founded in 1984 by University of Waterloo Electrical Engineering students, and is based in Waterloo, Ontario, with offices throughout North America, Europe and Asia. RIM is recognized globally as the developer of the BlackBerry smartphone which is used extensively throughout the world.

A co-op term at RIM means working with some of the brightest people on the forefront of technology. RIM offers stu-

dents the opportunity to grow and learn on the job while contributing to team and company goals. Students at RIM number in the hundreds and there is always plenty of extracurricular activity: ranging from RIM Co-op Social Committee, weekly sports nights, and informative speakers.

Placement opportunities are available in engineering, software development, hardware, mechanical design, manufacturing, marketing, sales, business and project management.

RIM is currently seeking students for the upcoming term and there are new positions being posted on the website daily. If you are interested in applying please check out www.experiencirim.com or www.rim.com/careers/students. If you have any questions about the application process, what it's like to work at RIM, my experience at RIM, or any other RIM-related questions, drop me an email, wbucholtz@rim.blackberry.net;

Will Bucholtz
Your RIM Campus Ambassador.

Inside the PDEng Independent Review



**MIKAYLA
MICOMONACO**
2B ELECTRICAL

On July 7th and 8th, there was a 3 person review board on campus to evaluate the PDEng program, and how it can be improved. This board consisted of the current dean of the University of British Columbia, a former dean of the University of Ottawa, and a member of the PEO.

Throughout these two days, the board met with many different students. Among these were two different meetings with class academic reps. These meetings allowed students to give direct feedback as to how they and their peers felt about PDEng, and what could be done to improve it.

The meeting I attended began with the review board asking us to come up with one positive thing each about PDEng. There were about 15 students in this meeting. After about three different reasons, including that some of the content was useful and that it was an opportunity to practice technical writing, we ran out of good things to say. After a few repetitions of the same reasons, they stopped us and we moved onto the negatives.

There were many problems with PDEng discussed, but some were emphasised more than others. One major topic that was discussed thoroughly was marking. The inconsistency of marking, as well as the use of a minimum function for grades, and that sometimes mentors from other programs would be marking technical content and might give bad marks due to their own lack of knowledge about the subject.

Another topic discussed was the templates. Several students were concerned about the template writing that was expect-

ed and how deviating from the template causes failure, even when the deviation was to include more detail and content. Concerns were also raised that expecting students to write exactly to a template will prevent students from developing the writing skills that one would hope for in the PDEng program, since every sentence is dictated to the student before they begin.

A third issue raised was the amount of time PDEng consumes. There were concerns from those who have more difficult work terms, with more hours of work expected of them by their employers, being unable to do all of these extra hours due to the requirements of PDEng (or vice versa). More flexibility in when students can do assignments, and making the assignments less time consuming were some of the changes requested by students.

A final concern raised was for more relevant course materials. Students acknowledged that there is some useful material in PDEng, but stated that there were other assignments which were not useful and seemed like a waste of time. Another comment made about course materials was that there should be less assumptions about what a particular student has had the opportunity to do on work term, since sometimes PDEng sets assignments which ask students to reflect on a particular aspect of their current or previous work term. Students may not have had the opportunity to actually experience these situations, depending on what they have done on their work terms.

These issues were discussed by the academic reps who were at the same meeting I attended. The review board let us continue for an hour and a half- half an hour longer than we were scheduled. The report is supposed to be published in the Fall, and hopefully student comments will have had a significant impact on the review board's findings.

Staff Appreciation Corner



**MICHELLE
CROAL**
EDITOR-IN-CHIEF

Well here we are at the end of term, and it's time to express my thanks to those who helped me stay sane these past three months! Stuart, you were my go-to guy for everything. Everything... "Stuart!!! How do I do this?? Stuart! Help me upload the paper to the server!" I can't believe you put up with it, and thanks a million that you did. Your experience was invaluable to my learning curve...

To Yousif and Amrita, without you two, I would have had to do layout entirely on my own... Which with my ceaseless perfectionist demands would've probably been easier for you to deal with, but I have since learned that "perfection is an asymptote" anyway. I can't thank you enough for the Sunday mornings I've come in and said to myself "Wow, we actually did a whole lot last night!", due to you sticking it out with me until the late hours of Saturday night. "Yousif!! Use the mouse! DRAG the object!" (as he uses the arrow keys to just nudge text across an entire two page spread...) Amrita, you know my secret interview tactics (namely flirtation) and we had a few good laughs together over the term.

To Jon, Matt and Amanda: your unfailing attendance at meetings and commitment to writing for the paper has put you as the Top 3 for word counts this term! Congratulations!

Jon, your articles make me laugh every single time, and we all know that without Matt's crossword/sudoku/obligatory news items, no-one would read this paper anyway... Amanda, you're always willing to write more content for me, even at last minute notice, so thanks! To my other staff writers: Jon Martin, Andrew W, Jooahna, Mikayla, Dan, Neil, Alex Angelo, Cailin, Kevin, Milena, Leah and Dalia: this paper would be nothing but blank pages without you, so make sure you realize how valuable your contributions are! EngSoc Exec, your reports were on time (for the most part), and I thank you for your continued support of our engineering newspaper.

To my classmates, thanks for supporting the IW by helping with distribution, carrying boxes, answering annoying questions and most importantly actually **READING THE PAPER!** To Bruce, over in Central Stores, thank you for that time when issue 3 came super late and you let me wait around in your warehouse AND lent me a trolley to haul those papers back over to E2! Mary Bland, without you the business side of things would never get done, and IW would cease to exist!

If I missed you here, it's not because I don't thank you for your contribution but probably because I have 36 things going on in my head and things get lost easily... Anyway, this paper is built by a team of wonderful individuals, and my sincere thanks go out to every one of them! Enjoy the issue :)



UNIVERSITY OF WATERLOO ENGINEERING JAZZ BAND
With Respect to Time

EOT Charity Gig

Saturday Aug 1, 2009 1:30-3:00pm

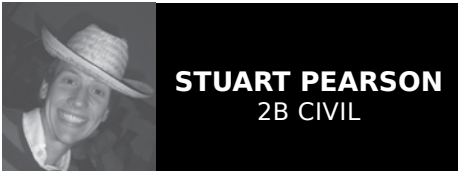
Waterloo Park Bandstand

Free Admission

(Collecting Donations for the Food Bank)

If it rains, it will be moved to SLC Great Hall, 2:00-3:30pm

EngSoc Motions to Allow 8s-4s Executives



STUART PEARSON
2B CIVIL

This article is based on the presentation made by the 8S Stream Committee at Joint Council on July 11th.

Conventionally, Engineering programs at the University of Waterloo run in alternating four month cycles of school and co-op. This system spawned the need for separate "A" and "B" student societies, a system that has worked effectively for over forty years. However, recent changes to this system have complicated matters in such a way that unfairly prevents students affected by these changes from participating fully in the Engineering Society. Nanotechnology engineering students operate on a system that involves irregularly alternating 8-month work and school terms ("8S Stream"). Similarly, some fourth year ECE students switch streams for their 4A terms. As a result of these changes, students in these programs are currently unable to run for executive positions in the Engineering Society during their upper years. Currently, students must be on the same stream for 16 consecutive months, beginning with four months of transition, their first four-month term in office, four months over co-op, and their final four-month term of office.

This inequality has led to some consternation among students who would like to get more involved in the Engineering Society but are unable to as a result of their academic program. To find a potential solution for the issue, a seven-member committee was selected by EngSoc to review options and propose a measure that would enable the affected students to participate fairly. Sean O'Neill, Nikki Weckman, Dan Taylor, Mina Labib, Cat Hay, Tim Bandura, and Stuart Pearson sat on the committee. The proposed plan has already been read to A-Soc once as well as at Joint Council, and A-Soc voting will occur on Wednesday, July 22nd. The motion will be read and voted on by B-Soc in the fall term. If the motion passes on both societies, it will be in place for the Fall 2009

elections.

Proposed Solution:

- Keep executive positions a full 16 months with the option to hold the position as a pair if necessary due to academic streaming.

- For this option to take effect, one partner must be unable to be on-stream for the whole 16-month term due to being enrolled in 8S or 4S. The other partner must be on-stream to carry out the executive duties when the original partner is off-stream.

- At least one of the people must be in 4S or 8S stream in order to run as a pair. The other person must be on opposite 4S or 8S stream, or can also be in regular 4 or 8 stream, as long as they can cover the opposite term from their partner. This applies to all executive positions, including president.

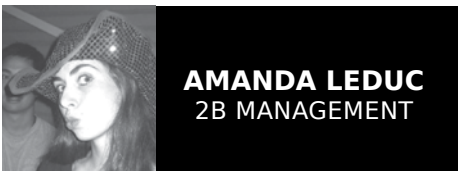
- Graduating students cannot use this option (in their 4B term), as this would mean that they are unable to help their partner transition during their second term of office. Students involved in extracurricular or voluntary academic programs (e.g. exchange) cannot use this option, either. The option is reserved solely for those who are put at a disadvantage because of their academic streaming.

The committee believes that this solution provides a fair means of allowing all engineering students to run for every executive position without drastically altering the current system. It also prevents by-elections every 8 months, which could lower voter turnout and increase apathy towards the Engineering Society.

Based on discussions with co-op and administration, the possibility of more programs switching to the 8-month co-op term model seems likely, but for now these changes have not been confirmed, nor has any schedule for implementation been established. At the present moment, the issue only affects a minority of students, so major constitutional changes were deemed unwarranted by the committee. If a majority of programs do adopt this system, then complete restructuring of the Engineering Society may be necessary in the future, but until these details become more concrete, the proposed solution will have to suffice.

Leader Retreat 2009

Frosh Week a Month Away



AMANDA LEDUC
2B MANAGEMENT

The summer leader retreat took place on the night of Saturday July 11 and all day on Sunday July 12. It was a lovely couple of days devoted to team bonding and general pre-frosh-week awesomeness.

Saturday evening was spent outdoors at CIF. We played a modified version of capture the flag consisting of three teams instead of the traditional two. Since we had no way to tell who was on which team, the most deceitful and convincing team succeeded at sneaking across enemy lines to capture one of the opposing team's flags. After capture the flag, FOC built a campfire by the lake and provided hot dogs and marshmallows for roasting. The campfire provided a nice relaxed atmosphere to mingle and get to know the other frosh leaders, not just the members with whom you will be paired during Frosh Week.

Sunday morning began early with a small meeting at CIF to partake in certain questionable and water-balloon related activities. All leaders then proceeded to RCH 101 to begin Frosh Week discussions. FOC announced the schedule for the week and described the events new to Frosh Week 2009.

One awesome new event is the "Murder Mystery Night" which will be replacing *Scumt*. The principle of the murder mystery is similar to *Scumt*, except that teams will receive clues for good performance in events and acquisitions rather than an arbitrary number of points.

The Sunday events were wrapped up by having each colour team perform a 5-minute skit to introduce their team's theme to the other leaders. Such memorable skits as "I'm a Boat" to introduce the Pirate team and "Inca-Inca" sung to the tune of the "oompa loompa" song shall not soon be forgotten by those in attendance.

Hats off to EngFOC for organizing a superbly fantastically marvelous event!

Engineering Debt Load Survey Results

1. Term Total

Total Responses: 521
Number of Surveys Sent: 1835
Response %: 28%
of Students in Core Classes: 2446

2. Does your family support you financially? (509 response)

Yes: 66%
No: 44%

3. Average Cost of Living for a 4 month School Term (517 responses)

\$10,148

4. Average Cost of Living for a 4 month Work Term (461 responses)

\$4,062

5. Have you applied for local aid or other bursaries to pay for school? (511 responses)

Yes 45%
No 40%
Not Yet 15%

6. Have you applied for OSAP? (517 responses)

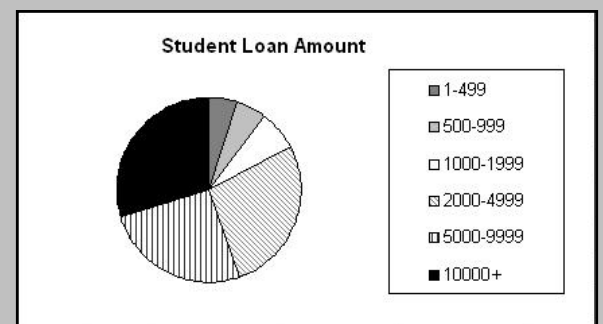
Yes & Received 38%
Yes & Denied 18%
No 43%

7. Do you have a loan for academic purposes? (512 responses)

Yes 40%
No 47%
Not Yet 12%

7a. How much is the student loan? (273 responses)

\$1-499 6%
\$500-999 2%
\$1000-1999 11%
\$2000-4999 25%
\$5000-9999 24%
\$10,000+ 32%



8. Has the differential tuition increases caused you hardship? (510 responses)

Yes 45%
No 22%
Not Yet 33%

9. How much debt do you expect to be in by graduation? (493 responses)

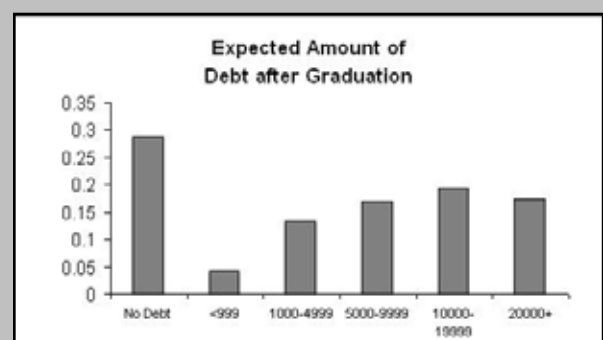
No Debt 23%
<\$999 3%
\$1000-4999 14%
\$5000-9999 15%
\$10,000-19,999 18%
\$20,000+ 26%

10. Do you live at home while at school? (509 responses)

Usually 9%
Used to 2%
No 90%

11. Have you lived at home while on work terms? (515 responses)

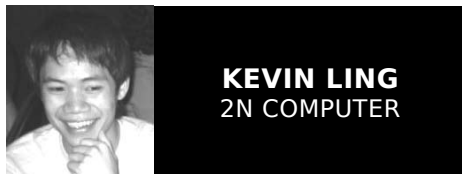
Always 22%
Sometimes 39%
Never 39%



12. Average of the weekly salary while on work term (428 responses)

\$672

UW Researchers Create Low Cost Internet Solution



KEVIN LING
2N COMPUTER

A team composed mainly of students and research programmers at the University of Waterloo has recently developed a simple and functional way to help spread internet communication to more remote regions of developing countries. Computer Science professor Srinivassan Keshav led the team in developing VLink, a free and open-source software system.

One major challenge to expanding the accessibility of internet access in developing countries is the restrictive costs of deploying either a landline, cellular, or satellite network to cover areas outside of major cities. With the VLink System, the cost of expanding the network is greatly reduced since it only requires the VLink software to be installed on each computer in the network, and only one of the computers to have internet connectivity. Since there is no hardware change required, deployment time can be as quick as two program installations.

The VLink implementation is a reliable way to deliver internet communications when there is little or no internet connection. While it can't match the ease of access that is experienced with a landline internet connection, it will hopefully be a practical solution for things such as email, where the speed of transmission is typically not too critical.

To set up a minimal network using VLink, all that is required is two computers (one with internet access), the VLink software, and a USB drive. How VLink works

is that it "freezes" all the packets sent by the computer without an internet connection. The data (ie: an email) is encrypted and kept on the computer until a USB drive is plugged in to retrieve the data. At that point, a courier physically transports the USB drive to a location where a computer is set up with a connection. When the USB drive is connected to that computer, the packets are automatically retrieved, "unfrozen", and sent across the internet to the recipient.

Since there are some situations where the speed of the internet communication is much more critical, the VLink system allows for a cell phone to be connected to the computer and send text only emails via a cellular service providers short message service (SMS).

The team that develops VLink sees this as a good way for non-governmental organizations to communicate with branches of their organizations in remote regions. For example, a nurse working in a small village in India can use VLink to contact a doctor in Canada for help on a diagnosis. It can also be used for farmers to communicate with a central organization to find out how much their crops are worth. The hope is that by spreading the access of information, developing countries can make more advances in socio-economic areas.

While it still has yet to be seen if VLink will be as wide spread and effective as its creators hope, it is another step towards making the internet a truly universal vector for communication and information. VLink is still in early trial stages, and the beta version of the software was released just last month. For more information, visit <http://blizzard.cs.uwaterloo.ca/tetherless/index.php/VLink>.

Obama's Tours in Africa

Political Growth and Foreign Policy



AMRITA YASIN
3A CHEMICAL

Africans prepared enthusiastically to welcome the American President, Barack Obama to Ghana on July 10, 2009 for his first Presidential visit to Africa.

This visit has been seen as an effort to integrate African countries into the world affairs. "The 21st Century will be shaped by what happens not just in Rome or Moscow or Washington, but by what happens in Ghana as well," he said in his speech in Ghana. President Obama chose Ghana due to its steady democracy and good governance which has led to the emergence of a relatively stable civil society and economic growth. He presented Ghana as a role model for the democracy and growth for the rest of African countries.

President Obama has stressed US concern for the whole continent of Africa during his visit to Ghana. He stressed the importance of four areas for Africa's development; democracy, opportunity, health and peaceful resolution of conflict. He urged the African countries to overcome poor governance, poverty and abuses of human rights and corruption prevailing in the continent and which has been disadvantageous to other countries too. The people of Africa should take the initiative themselves and stop pointing fingers at other countries for the instability and economic undergrowth. According to the President, good governance

is the key which can boost up economic and social development in Africa.

US foreign policy regarding Africa is still vague. President Obama's speech gave the impression that the African situation will become an integral part of US foreign policy, the exact policy still undefined. Changes envisioned by Obama entail huge financial commitments and with the recession and two wars, Congress is unlikely to take costly initiatives anywhere else. Having said that, in his previous visit to Italy, President Obama pledged \$20 billion to help Africa's poorest citizens with their financial crisis.

According to the President, previous US efforts to alleviate poor conditions in Africa have been ill-coordinated; a steady policy focussed on practically achievable goals is very important.

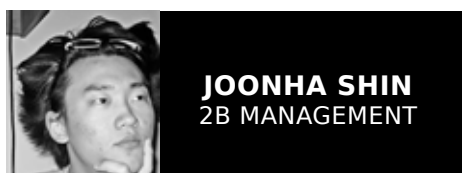
The president also addressed the West saying that help from the West should include more than just financial aid.

President Obama also presented the progress of African-American individuals and appreciated their talents and skills. Given socio-economic and political instability in African countries, Africans will also get the opportunities to employ their potential for the development of their nation.

Kenyan ex-President Daniel Arap Moi urged his nation not to expect much from the US President and to strive to solve their own local problems. This statement may also be considered an expression of contempt as the President's first visit was to Ghana and not Kenya, his father's homeland.

The African situation will become an integral part of US foreign policy

The Golden Shield Project



JOONHA SHIN
2B MANAGEMENT

More commonly referred to as the "The Great Firewall of China", the Golden Shield Project is a censorship project implemented by the People's Republic of

China (PRC) government. The goal of the project is to restrict the type of content internet users in China can access. It is an ongoing project since there are websites being created every day, which means the PRC will need to be on a constant look out for more websites to block. From an outsider's perspective, the project looks extremely successful.

Search for "The Great Firewall of Chi-

na" on Google then click the "I'm Feeling Lucky" button. You will be directed to www.greatfirewallofchina.org, a website which claims it used to be a working website. The main purpose of the website was to allow anyone to "test" whether or not a specific web address would be blocked in China. Sadly, it seems like this site has been inactive for more than a year. Here's what you'll see in the main

page of this website, explaining why they have decided to take their site offline.

"Because of the ever stricter measures of censorship China imposes on the Internet, the team of www.greatfirewallofchina.org at present can no longer vouch for the reliability of its test tool. We have therefore decided to take the test tool offline."

Is it possible that they been getting pressured from external forces (the PRC itself maybe?) and finally caved in? I couldn't tell you for sure. But I can tell you that the website still has some uses. They kept records of their previous tests, most of which ran two years ago. For example, Google was blocked in China as late as November of 2007. Upon checking their FAQ section however, I am told that censorship in China is constantly changing. What is blocked today might be available tomorrow. Regardless, censorship in China seems to be a serious social issue, and this website seems to have been made to emphasize this point.

How do 338 million internet users in China feel about this? First of all, would majority of them even see this as a concern? The answer to this question might not be so obvious, considering that different countries have different cultural norms.

If you were to type in "The Great Firewall of China" in Google, you would get over a million hits.

Of course, if you were in China, I doubt you would be able access Google.

EKSTASIS

FOR TICKETS CONTACT MELLVILLE CAFE

EVENT SPACE LOCATION

STUDENT \$10 ADULT \$15

7 MELVILLE ST. CAMBRIDGE

SCHOOL OF ARCHITECTURE

BAR OPENS AT 8:00 PM, PLAY BEGINS AT 9:00 PM

ARCHITECTURE PRESENTS EKSTASIS JULY 24TH, 25TH AND 26TH

An Enterprising Approach to Poverty

Manufacturing and Engineering in Ghana

FLORIN GHEORGHE

ENGINEERS WITHOUT BORDERS UBC

The Industrial Underbelly of West Africa

Covering an area of 450 acres with a working population of 200,000 people, the "Suame Magazine" neighbourhood of Kumasi, Ghana is Africa's largest informal engineering cluster. The Magazine attracts customers and investors from across the continent, as it is situated along major transport corridors from Cote d'Ivoire to Nigeria, and from northern Africa to the Atlantic.

The 12,000 small-scale enterprises in this "industrial cluster" benefit greatly from economies of scale as they interact in three main economic activities: vehicular repair, manufacturing, and spare parts dealing. However, despite an estimated \$1,000,000 in daily cash flow through the Magazine, the Government of Ghana estimates that 25% of people working here live in poverty, with the majority of artisans having very limited access to social services and few opportunities for skills and technology upgrading.

SMIDO: An Enterprising Approach to Poverty

In 2006, after recognizing the challenges, as well as the immense potential of the cluster, a small group of the Magazine's elders created the Suame Magazine Industrial Development Organization (SMIDO). As a grassroots organization, SMIDO aims to turn the Magazine into a technologically advanced indus-



Florin Gheorghe
Suame Magazine – a major transport corridor and industrial core

trial zone, promoting economic development through access to education and business development opportunities for the artisans.

SMIDO runs two main programs: the ICT Program, a training program providing computer skills, business management, literacy, as well as technical training; and the SMIDO Engineering Program with a goal to integrate small-scale artisans into formal sector supply chains.

The Engineering Program essentially resembles a non-profit manufacturing firm. Run by two young engineers, this "social enterprise" markets the skills of the Magazine to major multi-national corporations in the mining, food and beverage, and construction industries. The engineers then manage and sub-contract manufacturing contracts to various artisans in the Magazine.

A Proven Model for Social Enterprise

SMIDO's model of social enterprise became reality in early 2009. After a presentation to the executives of Global Gold Inc., a major North American gold mining company, they visited the Magazine to get an idea of SMIDO's potential.

Admittedly, the mining engineers were quite apprehensive about working with SMIDO, not least because of the appalling safety standards they witnessed in the Magazine:

- Many artisans involved in heavy machining would wear flip-flops and shorts
- No eye protection was available when grinding, machining, or even welding
- It is very common to find welding cables

carrying high currents that are tattered or exposed, and in some instances the artisans will place scrap pieces of metal plate and rod end to end, thereby creating an improvised "electrical cable".

• Common equipment in industry to prevent explosion when using cutting torches is not found in the Magazine.

The Global Gold engineers also questioned how SMIDO could manage and subcontract complex work to dozens of shops sprawled across 450 acres of the Magazine – all while ensuring industry standards in quality control. It seemed risky, but it sure was an interesting idea.

Promising to deliver the impossible – on time – SMIDO convinced Global Gold's engineers to take a chance. In May of 2009, Global Gold contracted SMIDO to supply a major access system upgrade to their Caterpillar 777 off-road haul trucks.

Four weeks later, SMIDO delivered the first of two units. Arriving at the Global Gold site in a broken down truck and a mismatched rainbow of torn coveralls, nobody quite expected what would come next. Six senior engineers – Australians, Canadians, Americans, Peruvians, and Ghanaians – stood silently around the work, carefully inspecting every weld and every brush of paint, finally breaking the tense silence with cheers of praise and handshakes.

"To be honest, I didn't think you guys could pull it off. I'm pleasantly surprised, and very impressed with the work you are doing," praised one of the company's chief engineers.

"Consider this a test for big things to come!"

The Result?

Valued at \$30,000, this contract was business as usual to Global Gold, and quite insignificant to the multi-billion dollar company, but it was a different story for the Magazine.

This was not only a \$30,000 manufacturing contract, but to the Magazine, this was \$30,000 of development. The money

would mean a direct cash injection into the economy of Suame Magazine in the form of material procurement, services, and fair wages. That translates into \$30,000 of school fees, health care, and improved nutrition for the families of the artisans.

100% of SMIDO's profit would be used to fund the ICT Training Program to further develop the business, literacy, and technical skills of artisans, making them more appealing for companies like Global Gold to work with in the future. A portion of the profit was invested in improving working conditions and safety practices in the Magazine by subsidizing the purchase of personal protective equipment for all artisans involved as well as providing training on industry standards and promoting an incentive-based culture of safety.

This program goes beyond a \$30,000 contract. Long term partnerships, like this one with Global Gold, remove a layer of vulnerability from life in the Magazine. It allows artisans to plan, save, and to make investments into their own businesses for improved quality, education, skills development, and safer manufacturing practices.

Consider an artisan who makes \$2 a day and sometimes goes three weeks without work, for them a simple investment in \$5 safety glasses is out of the question, not to mention the \$10 per foot for new welding cable – may as well lay scrap metal end to end to serve as an extension cable in the shop!

Africans have long been recipients of Western food aid, medicine, teachers, tractors,

clothing, or goats – as if incapable to solve their own problems. Today there is a noticeable change in the Magazine. Thanks to the improved business that SMIDO and Global Gold provide, artisans have seen a steady increase in income. With that, comes not just the power to buy food and pay school fees for their families, but the opportunity for Africans to choose and build lives of dignity and personal value.

Impact Summary

Since the start of the SMIDO Engineering Program in mid-2008, the following impacts have been achieved:

- Funded the training of nearly 200 artisans in computer skills, advanced auto diagnostics, safety and quality standards, technical and business skills, as well as English and French literacy
- Invested 5% of revenue towards better safety practices
- Engaged an average of 30 artisans and small-scale enterprises per project for procurement of materials, services, and labour
- Increased income of sub-contracted artisans by 200-300%, providing wages that are 10 times higher than Ghana's minimum wage for labour
- Developed long-term supply chain partnerships with six multi-national corporations, promoting import substitution for a healthier local economy
- Executed contracts totalling \$130,000, with 100% of this revenue channelled towards development of sustainable livelihoods in the Suame Magazine

The Impact that One Engineer Can Have

One of the challenges SMIDO has faced in engaging industry is the negative perception of the informal sector, which is synonymous with "small-scale, unreliable, and of poor quality." SMIDO is quickly moving beyond that perspective, thanks to two young engineers, a Canadian and a Ghanaian, who have taken on this challenge by running the program.

But a great deal of SMIDO's success is owed to the decisions of a few bold engineers at Global Gold Inc. Faced with an interesting (yet unfamiliar and untested) opportunity they took a chance and put their faith in SMIDO. That opportunity has turned into a long-term, mutually beneficial relationship, one that provides Global Gold with high quality local products; a low cost compared to the imported equivalent, free of international shipping charges or hefty import taxes; and the opportunity to become a champion of Corporate Social Responsibility in the international mining industry.

Many companies have charitable giving programs and fund various initiatives, but rarely does a major corporation like Global Gold integrate an innovative local partner such as SMIDO – and the beneficiaries of their charity, the one billion people around the world living in poverty – into the core activities of the business.

This presents an exciting challenge for Canadian engineers, both at home and abroad. Our profession is fast becoming one of key global influence, with immense potential for social, environmental, and economic betterment. Although the idea of "Corporate Social Responsibility" has now become institutionalized in nearly every engineering company, it is up to the individual to make it meaningful. The success of SMIDO would not have been possible without Global Gold's engineers thinking differently, and exhibiting four key attitudes:

- **Entrepreneurialism:** Having never

worked with an organization like SMIDO, the engineers took a calculated risk and invested some resources and time into creating a mutually beneficial partnership. In the end, it provided both economic and social returns.

• **Sense of Social Responsibility:** At every step of the way, Global Gold's engineers showed compassion and a drive to support local initiatives and strengthen the Ghanaian



Florin Gheorghe

Machining artisan hard at work

economy. This drive cannot be mandated by a company's CSR policy, but is up to the individual.

• **Understanding Local Context:** Without understanding our background, and that of the informal sector, it would have been easy for the engineers to shrug off the Magazine as a useless junk yard. Looking past the surface though, they could see thousands of talented artisans who simply lacked a viable market.

• **Willingness to Collaborate and Learn:** Global Gold's engineers understood that SMIDO was new in the game – and perhaps was used to playing a different game altogether. Although the partnership with SMIDO didn't require any more time, money, or resources than a traditional supplier, it certainly required a different approach. Working together, both SMIDO and Global Gold adapted their supply chain management style to better serve each other.

SMIDO's example has proven the massive impact that one engineer can have, and there are ways we can all play our part. Whether



Florin Gheorghe

SMIDO delivers their upgraded Caterpillar 777 trucks to Global Gold

working for organizations like SMIDO, choosing to support local purchasing in your workplace, advocating for responsible corporate and regulatory policy, or just encouraging your workplace to switch to Fair Trade coffee, all of us can contribute to building a globally conscious profession recognized for its positive contribution to society, the environment, and our global economy.

Florin is a fourth year undergraduate mechanical engineering student at UBC. During the summer of 2008 he spent four months in Zambia with Engineers Without Borders. He is now nearing the end of an eight month contract in Ghana, which he arranged with SMIDO directly.

Looking a Little Deeper: Packet Inspection

Canadian ISPs and their shady ways



JON RADICE
3A CHEMICAL

IBs, let me impart a little slice of wisdom on you. While you still have a little bit of time left before you're done this term **DOWNLOAD AS MUCH STUFF AS YOU CAN**. TV shows, movies, music – anything and everything that you can find on DC++. Why? Because once you're out and on your own renting your own house or apartment, you get to come across one of the worst trends that is sweeping our nation: tyrannical ISP providers.

There are really two players in the Waterloo region for ISPs – Rogers and Bell. Sure there are many smaller companies as well, but they are running off of the same infrastructure that Bell or

Not all P2P use is illegal, as there is a lot of public-domain, open source software on file-sharing sites. Also there are many other legal practices that mimic heavy bandwidth use: playing intensive video games or streaming a large number of videos. In fact the Hospital for Sick Children is filing a claim against Bell as they claim that they were throttled when they were streaming a live charity fundraiser across the internet, causing their live stream to be cut off many times. Bell declined to comment on it.

One of the more outlandish claims is that all of this high-use is slowing down the speed and hogging all the bandwidth. This statement makes just about as much sense as telling drivers to share cars when there is rush hour, to prevent congestion. Poor infrastructure is no excuse, especially for a company that has not increased the speed of their internet services in the last 4 years, causing Canada to fall farther behind in internet speeds. If they know that they can't reach their speeds at peak hours, and then do not try to work on expanding the system, that just screams laziness from a company that does not need to care about its customers.



Wired Magazine

60 years ago they used bugged wires; now it's Packet Inspection

Rogers use and therefore they have to play by their rules. If you haven't heard some of the latest and greatest ideas that these companies have developed, listen up.

In order to combat those heinous pirates that are lurking around everywhere, Rogers and Bell have decided to throttle the users whenever their downloading pattern appears similar to that of P2P downloading. They claim that not only will this prevent piracy, but it also will prevent slowdowns from other users during peak hours by 'unclogging' the lines of the heavy-use traffic. Just recently, Bell decided that they might introduce Deep Packet Inspection; which will pluck at random packets of information sent to or from you in order to make sure the information being sent isn't harmful, criminal or malicious. Not surprisingly, all of these ideas have been met with a large amount of criticism.

Canadians. By labeling every packet to be scanned as a 'potential threat' is assuming that every Canadian is a terrorist, a pirate and a child pornographer all in one. Adding this policy will not help the internet, where the constant outpouring of unfiltered content has shaped our culture so much in such a short period of time. The main problem with this, similar to the main problem with closed circuit camera systems or warrantless wiretaps, is that it is the governing body's choice to decide what is right and what is wrong. And that becomes just as rife for abuse by the overseers just as much as they are claiming people are treating their internet service.

The internet providers would rather you clean up their shoddy services than to actually improve their services themselves. And they feel that they are big enough to get away with it.

Engineers CAN Act!



STUART PEARSON
2B CIVIL

Every term, Engplay happens. Calculus-weary engineers look for a reprieve from school work and show off their hitherto undiscovered acting talents. This year, EngPlay was a series of short skits, rather than a longer single play as is usually performed. Director Megan Pollock chose eight hilarious sketches, and her cast did a fantastic job of bringing them to life.

I had the chance to see Saturday's performance; traditionally the final EngPlay show of the term is somewhat chaotic. Most of the crowd shows up heavily inebriated and the audience's heckling unfortunately tends to drown out the actors' performances. This term, however, the crowd may have gone a little too far when they started firing numerous projectiles at the stage. That being said, this term's cast did a fine job of carrying on regardless of their audience, even firing back with a few witty retorts.

An ongoing sketch, *Check, Please*, bookended the first and second acts, recounting a series of unsuccessful (and at times painful) dinner dates. The entire cast drifted in and out of these skits over the course of the play, including a memorable (if not alarming) appearance by Mina Labib in a dress. *Wash and Dry* was an amusing tale of belligerent laundry clerk Mike Seliske's systematic abuse of his customer (Marissa

Bale) regarding the misinterpretation (or is that false advertising?) of his laundromat's sign.

Itch was one of the funniest skits of the night, wherein a man (Mark Aylward Nally), frustrated with his marriage, seeks the help of a prostitute (Melissa Deziel) to scratch an itch that he just couldn't reach on his own. *Gone to Take A...* recounted the story of two employees at a shoe store (Dan Armstrong and Graham Hendra), one of whom had extraordinary difficulty talking about bodily functions. This skit was lots of fun to watch.

In *Alone at Last*, a young couple (Kerryck Jones and Kiara Bruggerman) finally have a chance to be alone with each other... that is, until their families and a host of other guests arrive to critique them on their technique! What is "Skronking"? Even by the end of *No Skronking*, nobody knew, but it was still a great sketch. In *No Dogs Allowed*, Kiara Bruggerman defended the honour of her "husband" (Mina Labib), whose uncanny resemblance to a dog drew criticism from disgruntled manager Sanders Wong.



Michael Seliske

Melissa Deziel acts out as a mime

Duck! Wait – does that mean, "lower your head", or "beware of vicious waterfowl!?" This debate lies at the heart of *Duck*, where Cailin Hillier and Mina Labib ruminated on the ambiguities of the word while avoiding angry birds in a most hilarious fashion. EngPlay finished with another round of *Check, Please*, and had a happy ending for the two protagonists in spite of their previous dating disasters.

Great job to everyone involved, your hard work certainly paid off! It was defi-



Michael Seliske

Mark Aylward Nally and Melissa Deziel in *Itch*

POETS

MOVIE SCHEDULE

SHOWINGS BEGIN AT NOON

Wednesday July 22 Jurassic Park Close Encounters of the Third Kind ET	Thursday July 23 Weeds	Friday July 24 Bartender's Choice	Monday July 27 Hancock Fantastic 4 Silver Surfer	Tuesday July 28 Flight Conair Airplane
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ENGINEERING SOCIETY EXECUTIVE REPORTS

VP External Report



MIKE MCCAULEY
VP-EXTERNAL

Wow, last IW report of the term already!? I guess this means I should probably start studying pretty soon.

I'm excited to say that I think it's been an amazing term and I've thoroughly enjoyed my first term as your VPX. I'm definitely looking forward to the upcoming winter term when we're back together.

There are a couple final events before we throw in the towel for this term. First is the charity event in support of the Alzheimer's Society of Canada which is about to happen in a couple hours or has already happened (July 22), depending on when this paper hits the stands. Participants gathered pledges in support of PURPLING themselves so watch out for an increased number of purple engineers roaming the halls these days!

The second exciting event is happening this FRIDAY (July 24) and it is dubbed

ENGSOX FLOAT DAY. We will be giving out FREE soda floats (pop + ice cream = awesomeness) outside CPH and RCH to celebrate the end of the term and just because it's cool to give out free stuff. This is the first event of its kind so be sure to come out between 11:30-1:30 to grab your free float and spread the word amongst your friends!

Student Life 101 is also coming up this Saturday (July 25). The event is designed to welcome incoming UW students to campus

and to give them a feel for what to expect when their on campus. If you are interested in helping to volunteer to help us with the Engineering portion of this event, please email me and we will get you involved.

Lastly, the Ontario Society of Professional Engineers (OSPE) has put a call out for presenters for Engineering in a Climate of Change: Making the Lakes Great. This one-day symposium explores approaches to mitigate, adapt, and improve resilience in large lakes. It will take place at the MaRS Centre (downtown Toronto) on April 29, 2010. This is a fantastic opportunity for students to interact with industry and to spread the word about interesting projects being worked on at UW. For more information check out <http://www.ospe.on.ca/Climatechange/public/pdf/call%20for%20presentations%20a pril%202010%20v3.pdf>. Submissions are being accepted until September 30, 2009.

I'd like to send a huge thank you to everyone who made this an outstanding summer term - we had some great events and A-Soc was very well represented at the conferences this term.

The upcoming fall term is a busy one for conferences so keep your eye out for some exciting opportunities to attend events throughout the work term. I will be sending out information over the mailing list so stay tuned.

Well, I think that's all folks! Best of luck to everyone on finals and I look forward to seeing you in the winter! As always, feel free to email me (asoc_vpext@engmail) if you have any questions. -Mike :)

VP Internal Report



TIM BANDURA
VP-INTERNAL

Final Exec Report of my First Term as VPI!!!!!! YAY!!!!!!

WOAH! It's nearly gone! The term just rushed by! Time flies when you're having fun!

So here's a quick update on some of the more recent events that have happened. D.U.S.T.E.D. took place July 9th. A lot of people had a great time hanging out, singing, and playing a few games! July 11th was the date of our important Joint Council. It's the Council meeting that trumps all over Council meetings simply because we get to meet with our B-soc counterparts! We also held a successful brunch and dinner in celebration of the day too! All the food was delicious and seemingly endless. A quick thanks to everyone who helped run that! Engplay was another wonderful success this year too. It was an enjoyable series of short skits put on by our own very talented fellow students! Very few words can describe the feeling of theatre. Thanks to all the cast and crew for performing! Our final council meeting just happened too! A delicious Potluck with your Exec and many others purpled and delectable dishes that were devoured.

Our last upcoming event of the term is EOT this Friday, July 24th! I really hope

to see you all out! We'll have the patio open and I'm sure the Tool will drop by for a visit. Plus, we'll get to see the final standings for P**5 and the TSN video!

Don't forget that it's Directorship Season! All sorts of directorships for this upcoming Winter 2010 term are now open to those who are interested in helping out, gaining some leadership and organizational skills, or just meeting new people! Applications close on Monday, July 29th at 4:30 PM. Go online to <http://www.engsoc.uwaterloo.ca/directors/application-form> (make sure you're logged in!) and fill one out! If you don't see a directorship you want to run, send us an email suggesting it!

Finally, all the amazing stuff and events could not have happened without my directors. They all gave a portion of their time and energy to run events and services. We had memorable events such as bowling, athletics, Genius Bowl, semi-formal, music, TalEng, Special Events, Engplay, and a few year spirit parties! We also had people who gave their time to offer us services such as Jazz Band, secretary, TSN video, P**5, signs & whiteboards, class rep advisors, and e-mail communications!

Thank you all very much! YAY!

I wish you all the best of luck heading into your finals, and I hope you will all have a wonderful Fall term. Can't wait to see everyone back in the Winter term!!!

Presidential Report



SARAH SCHARF
PRESIDENT

EngSoc, it's that time of year again. Projects are due and exams are just around the corner. To all of those who volunteered for us, thank you. To all of those who enjoyed our events and took advantage of our services, thank you for showing your support for your engineering society. EngSoc has had a very busy term, above and

beyond the everyday activities. Here is my final update for the spring 2009 term, as a brief recap of the major happenings. Good luck on your exams, enjoy your time off, and have a good work term!

New Website: On May 1st we launched our brand new website. We hired external developers to create it to our specifications, and it turned out great. The feedback we got from students early on was very positive, and we also welcome more. We are still working on an ideal way to add new students as members to it, but hopefully that will come soon.

POETS: Since the renovations to our beloved POETS were completed in December, we have been continuing to make POETS the best it can be. The new furniture came in about mid-June, as well as the pool table. Your exec and Mary will continue to work with plant ops to have the decorative Plexiglas in place as soon as possible so that students can actually use the new pool table.

The Dean's Office: Dean Sedra returned from his sabbatical on July 1st after writing the 8th edition of his textbook *Micro-electronic Circuits*. Professor Rothenburg,

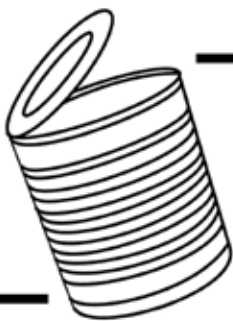
who took on the position of Acting Dean during the Dean's absence, was recently appointed to the position of Associate VP, International.

Welcome letter: For the first time ever, the Engineering Society created a welcome letter for the incoming first year students, to be put in their frosh kits in September. This was done in an effort to raise awareness in first years of EngSoc and what it has to offer. I'd really appreciate hearing about any first years who mention the letter. It would be great to see how many students it reached.

FRI. JULY 24
11:30-1:30 CPH COURTYARD & OUTSIDE RCH

**FREE
FLOATS**

ALL ARE WELCOME!
(SERIOUSLY, EVERYONE...)



Pro0fs That Ch4ng3d Teh Universe

Page e²

Twilight
Classic Literature for the 21st Century

Page 3

The Mystery is Revealed...

Page 2

Colonel Sanders' Mustache is watching you...

Party's Over at DC

AMRITA YASIN
DC VETERAN

In order to help students confirm to the individualistic culture and condemn students to a life of solitude, Davis Centre Library (aka DC) has taken measures to lessen the degree of interaction among students. Twenty-two tables and eighty-eight chairs have been removed from the Davis Centre Library and distributed throughout the Student Life Centre. The remaining tables have been arranged at longer distances (at some locations enough for a Frisbee or dodge-ball game) to provide less area for study in general and group study in particular in the library.

Assuming that each and every student on campus can only study in pin drop silence and that majority of students are from Faculty of Arts who do not have too many group projects and assignments that make you consider suicide a logical solution, DC administrators felt the need to transform DC to make it more suitable for (individual) studying. Taking out furniture seems to be the perfect solution to bring down the volume in the library by bringing down the number of people who used to produce that volume while studying. One of the reasons for the quieter environment is the low enrolment and even lower interest of enrolled



No wonder DC is quiet!

students in studying when the weather is so awesome, give and take the rain showers and drizzling times.

Students have indeed noticed the change in the environment and are hoping that it will change in the busier terms. DC is a library for people who like studying in noisy places and group studying in DC just provides the right kind of atmosphere. If these transformations continue on, DC will soon resemble its twin sister DP, where a harm-

less act such as flipping a page is likely to make every head on the floor turn around.

"Ever since they removed the study tables, I have been having group meetings among the book-shelves. It works well because no one bothers us about the noise", said a friend, who will probably get beaten up by DC staff if they happen to read this.

When old-DC loyalists like me express concerns, we are provided with a list of all the places allowing group study that exist

or ever existed on campus. Needless to say, I get heart-broken when I do not see the well-deserving DC on such a list.

Future plans

Another huge concern is the 'presence' of cell phones in DC. 'Use' of cell phones is not permitted in the library. So if you think you can store that call number on your amazing iPhone 3GS because you cannot find a pen and a paper, or you can just look at the calendar to see when your assignment is due, you probably will be asked to leave the library. As much as they want to, if signal access is blocked in the library, the student body being accustomed to cell phones since high school will most likely kill them!

With the speed with which the changes are being implemented, the need for professional help will become necessary to mute down the rustling of pages, typing of the keys, and possible breathing!

After removing the study tables, which have been used for group study, from the open area DC administration now plans to remove the individual study rooms intended for individual study (that was hard!).

See TOO QUIET TO STUDY
Page 4

ENGINEERING VI PLANS LEAKED

MATT CASSWELL
CONSTRUCTION JUNKIE

In an unprecedented move, the Faculty of Engineering has leaked the top-secret plans of Engineering VI exclusively to *The Iron Warrior*. Engineering VI, a new engineering building to be built on the B-lot behind the plaza, to the East of the E5 construction site, is to house the Chemical Engineering Department.

Engineering 6 is being built as a design-build project, and until recently all miscellanea has been kept under close guard by the Dean's office.

Design-Builds are controversial projects where a majority of the structure is designed as it is getting built. However, the Faculty of Engineering has created some very basic design ideas that construction is going to follow, and will give us a rough idea of how the building is going to turn out in the end.

The building will somewhat resemble DC in the fact that it is filled with a lot of useless, empty space that could be better used for something else. Some of this useless space includes a grand entry foyer, a scenic look-out space, and wide hallways filled with objects depicting how awesome Waterloo is, in order to impress visitors and prospective international students. E6 will also feature a new lecture hall, storage facilities for Management Engineering kids, and lots of "fancy new stuff" that the students will never be able to use. Additional storage and research space for nuclear waste, biohazards, and other generally "stanky" materials

will be provided. About 30% of the structure remains unfilled, and its contents will be announced at a later date.

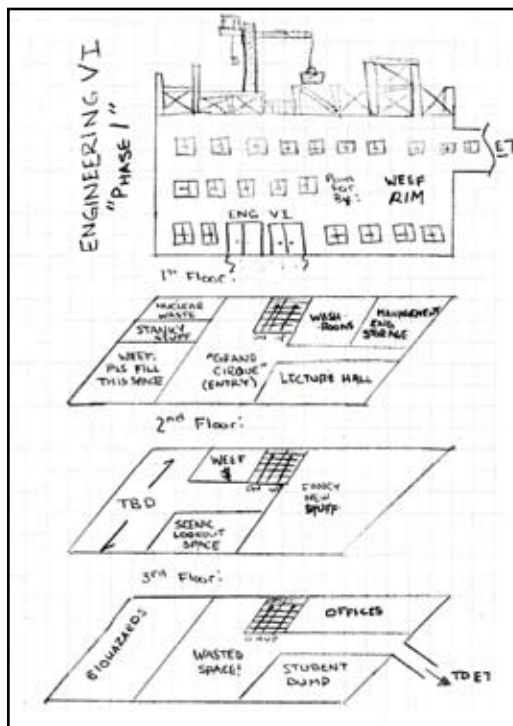
Fancy New Stuff, WEEF Funding

It is not yet clear what fancy new stuff the Faculty of Engineering and the Chemical Engineering department intends on filling up various rooms with, but it expected to be very fancy, and very expensive. Most of these new things will also likely not be for the use of students, meaning Chemical Engineering students will have to resort to using the same 30-year-old lab equipment that their profs used when they were doing their undergrad degree.

The Faculty of Engineering is expected to ask WEEF to fund some (read: all) of the purchases for the fancy new stuff, as well as equipment for computer labs and innovative student collaboration incubators. Overall, students are not expected to benefit too much from this new building except for when they have the odd chance of being in the new lecture hall, which will likely feature desks, chairs, and a chalk board. Most of the building will be used by faculty and research professionals for elaborate offices, private research stations, and other things which the University uses as reason for raising our tuition.

Phased Construction Process

As previously mentioned, Engineering VI will be constructed in two phases, Phase I and Phase II. Originally, the plan was to just "shell" in the entire building, finishing some



floors, but not finishing others until later. Later, it was revealed that it was expected that Phase II would instead add on to the building in the areas currently occupied by East Campus Hall. The most recent revelations reveal, however, that construction is instead not going to stop after Phase I is completed: Phase I will consist of construction floors 1-3, with Phase II consisting of floors 4+. While several other buildings at Waterloo have been expanded upwards, including E2, RCH, and DP, they were actually finished first. To save money, the Fac-

ulty of Engineering isn't going to finish the roof of E6, and instead just leave all cranes, steel, concrete, and barbed wire in place until they are ready to continue construction. This decision was made most likely because the Faculty feels that students should be used to construction by now, and that working in a dust-filled, unfinished building wouldn't cause too much anguish amongst students.

It is not clear, however, if any roof will be put on the building prior to the completion of Phase I. Putting on a roof would require extra money for water-proofing, installation, and then removal once Phase II construction begins. Instead, a series of blue tarps and duct tape will likely be spread across the soon-to-be-fourth floor of E6 to provide students some shelter from the rain. As the fancy new stuff is to be located on the second floor, only the biohazardous materials and wasted space have a chance of feeling adverse affects due to weather.

The Next Steps

It is unclear if the University has found a contractor to begin construction, though construction will start in August 2009.

In addition to creating new space for different departments, it is also expected that the Management Sciences department will eventually be consolidated somewhere other than the ritzy fourth floor of CPH.

See OMG NEW BUILDING
Page 2

Koolerzeit mit Dan und Neil



DAN ARMSTRONG
ANGESÄUSELT
NEIL PARTRIDGE
BETRUNKEN

Welcome, to the first issue of Koolerzeit mit Dan und Neil, the cooler connoisseurs of Waterloo. We have traveled the world in search of the finest craft coolers, and today we bring you a review of the absolute best, most exquisite, most complex elixir this Earth has seen: Woody's Blueberry Pomtini. Before we get into the subtleties of this liquid sapphire, let us first unravel the history of this magical family of beverages as well as tell you a bit about Woody's, their eldest brewer.

Dan: Coolers have been pleasing palates for thousands of years now. They were first developed by the nobles of ancient Greece as treats for their servant boys; the boys loved the sweet flavours, and the alcohol ensured they wouldn't put up too much of a fuss when it was time to 'get to work'. Bros such as Neil and myself apply this same technique to today's female club-goers, and 40% of the time, it works every time. Trust me ladies, when Neil looks you in the eye and hands you a bright purple cooler, you won't even care how many sexual assault charges he has. A little known piece of history is that

Woody's Blueberry Pomtini was in fact Jesus Christ's beverage of choice for the last supper, an appropriate selection really as it compliments just about any dish, deep-fried or otherwise.

Today, coolers are made by breweries around the world, using the synthesized fruit juices native to that area to produce a sort of faux-tropical plasticky sweetness that cannot be found in any other drink. Typically in the 5-7% ABV range, the colours can range from fluorescent pink to neon orange, from Hi-Liter blue to nuclear waste green.

Neil: Woody's has a long and strange history, dating as far back to -103 BC. The first neon coloured beverage was derived from berry juice and the vital organs of several mythological creatures. How else can you explain that unearthly glow? Remaining at micro-scale for many years, Woody's received divine props from the J-man himself at the last supper (see above), resulting in an ascension to the top of the alcoholic world. Much later, Woody's discovered that the use of refined sugar and artificial flavours were much easier to industrialize than butchering baby unicorns. However, the switch to modern ingredients and distilling technique did not come soon enough. Woody's is accountable for the extinction of at least three exotic animal species, a figure reported by Animal

Protection Services as the sole-worst case of xenocide preceding Ender's Game. Dan also has a record with Animal Protection Services, but that's neither here nor there (He was acquitted on the account of 'cooler goggles', sadly enough).

Regardless, the Woody's we know today produces several easy to drink beverages that all bros can enjoy. Personally, I have a Woody every morning, after class, and preceding every new episode of Keys to the VIP.

Dan's thoughts: After pouring this into my man glass, there was a nice bunch of purple bubbles but they disappeared faster than Neil after he sees a used box of pregnancy tests. The colour reminds me of a melted purple popsicle. The smell is heavenly, like an empty grape juice carton that's been sitting on the counter for a few weeks. Every sip is pure euphoria; there's fresh blueberry concentrate with a hint of synthesized pomegranate, followed by notes of cheap vodka, all balanced out with the purest refined sugar. This is better than the feeling I get after a nice scrimmage with the guys... Damn it's even better than the shower we take together afterwards. Largely due to how much Neil and I drink this stuff, Woody's Blueberry Pomtini is currently the third best selling drink at Caesar Martini's, losing only to Heinekens and Jager-bombs.

[5 unnecessary spoilers/5]

Neil's thoughts: One quick twist of a cap reveals the high level of carbonation in this drink. On first pour, the foam flares up menacingly like a purple-headed monster. It seems suspicious, yet expected for Dan to contribute that analogy to my section... Well, despite a very real threat of foam-to-face contact, Woody's Blueberry Pomtini is truly a work of art. Woody's engrained the visual appeal of blueberry and artificial pomegranate with scrupulous attention to detail. It's blueish-purple as expected of a traditional blueberry vodka infusion, which is emphasized by a unique clear tinted bottle.

On a side note, you can use this drink to accessorize for club nights. Match the drink with an extra small, sky blue cardigan for best effect. What I love most about Woody's is how they added that special ingredient that promotes a feeling of superiority. I think it's called Alcohol? No, alcohol! Indeed, these masters of taste have created a perfect blend of alcohol and awesome, sort of like myself every Friday at Philthy McNasty's. Pick up a four pack on your next trip to party zone, the area beside that shitty Ontario craft beer section at the LCBO.

[5 Ravin' Eurobeats/5]

Props to Chris Brown// Dan and Neil

E6 Will Eat You for Breakfast

OMG NEW BUILDING
From Page 1

With classrooms in DWE, lounges in CPH, and a new storage space in E6, the required physical fitness of Management Engineers will increase as they run across campus trying to get to their labs and classes on time.

Since the Faculty sees physical fitness as an unnecessary requirement for admis-

sion, a shuttle service between engineering buildings may soon be implemented to help students travel across the train tracks, and in particular help management science students get around without burning too many calories. Some additional features of this new system may include covered stations at E5, E6, and CPH, a pre-paid fare system, and stops on demand at RCH, DC, and V1.

EngSoc Motions to Increase Exec Power Yet Again



ALEX GIROUX
DISILLUSIONED
VOTER

In an unprecedented move, Engsoc Joint Council voted this Tuesday to once again increase the number of Exec to accommodate a new program. This brings the total number of Exec at any one time to 43, surpassing the total number of votes in the last election. One of Engoc's presidents (of five in total) said that the motion was put forward in an effort to allow students in the most recently added program, Randomized Engineering, to serve as executives on the Councils.

"This motion allows Randomized Engineering students to run for Exec. In order to better serve employers, their co-op terms are determined by spinning a giant "Wheel of Fortune" type contraption in January of each year, which makes it very hard to them to, you know, do ANYTHING. We, the Exec, feel that it is only right and just to allow them to run, and we feel that adding more Exec positions will serve that purpose," said a very harried President #Uno, as he attempted to dodge my questions on the way to his next class. When asked about the depressing statistic that there were now 43 Exec positions, when only 37 votes had been received in the last election, he mumbled something unintelligible before going

into class.

"We're in the process of drafting a motion to allow the campus geese to vote. There are so many of them on campus, they should have a voice in who runs things," explained another Exec member, who wished to remain anonymous. "We realise that there will be opposition to this, but we also feel that having their campus run by geese will encourage more students to get out and vote, and become involved in their society."

Those who are strongly opposed to allowing geese to vote in Engsoc elections are few and far between, with most students not caring one way or another. "Engsoc had an election?" was an oft-asked question during a random survey of students in the CPH foyer. However, one lone third year did take a stand last Wednesday, when he stood in on the CPH benches offering "roasted goose" to all who passed him and wearing a sign saying "GEESE ARE FOOD, NOT A VOTING POPULATION!". However, when the administration questioned him, fearing that an offense against a goose had been committed, he admitted that the "goose" was actually turkey, and that although he had considered catching a goose for his protest, the thought of being attacked by the goose and being forced to miss his finals was off-putting and he decided to use a common goose substitute instead.

For more information on both motions, please see the Engsoc website: www.uwaterloo.engsoc2020.com

Grad School Mixology

Tasting the Mystery Bottle



JON RADICE
PHD IN ETOH

Inside of the Iron Warrior office, high above one of the many display cases showing off our enumerable awards for journalistic excellence and love-making, lies a clear bottle adorned with a solid black question mark. This bottle is the alcohol aficionado's Holy Grail, something out of the most divine of dreams. A bottle that never goes empty, that never tastes the same, but will give you a good buzz all the same; an act of benevolence so heartfelt, Greek poetry has just recently discovered poems dedicated to it. People here in the office have come to know it as the Mystery Bottle, while I have come to know it as a little slice of heaven.

Describing what the product of the Mystery Bottle tastes like is almost entirely moot. As we speak, hard working taste engineers (yes *The Tin Soldier* has enough money to hire two full time taste engineers) are constantly tweaking the subtle flavours and tannin balances every day and every night. In my one year of writing for *The Iron Warrior*, I have watched the fabled concoction turn from a golden honey brown to a deep crimson, and I have no idea where the colour will end up when I come back in the winter term. The aroma is overpowering, yet inviting; opening the bottle turned every Asian's face in the room a bright, drunk, red just on smell alone. By putting your lips to the bottle, you get so lightheaded you need another strong partner just to lift the bottle to you. And then, down the hatch.

After I regained consciousness and my vision, I was met with a strange combination of some of my most hated tastes: cinnamon, gin, and a hint of tequila. Combined however, and it was

almost like my tongue had forgotten all of the bad aspects of those flavours. The mixture made me realize the merits of those tastes, how each simple flavour combined to make one of the greatest swigs of booze out of an unmarked bottle that I ever had the joy of experiencing. The taste is so transcendent that I have decided changed my career path from 'Chemical Engineer' to 'Loveable Drunk.' But therein lies the one and only problem of the Mystery Bottle; it makes you want to experiment with as many concentrations as possible. Tequila and jagermeisters, scotch and coffees, whiskey and chocolate milks are not stupid ideas once your mind has been liberated thanks to the Mystery Bottle. The world is your mixed drink, and that could lead to some ostracism from your snobby Bud-Light drinking peers. But I'll understand your madness, and more importantly so will the Mystery Bottle.

To those attempting to make a Mystery Bottle, patience is your new mantra. Sure you'll want to dump all of your leftover mickeys and 26ers into there and start chugging it back, who wouldn't? But to deny the Mystery Bottle the time and experience needed to perfect itself would be doing it a massive disservice. Once you can't remember what's in it, then you can start tasting it. But the key thing is that the Mystery Bottle is a social bottle. Share it with friends, have them add or subtract what they want. Diversity is the name of the game. And hopefully you'll stumble upon the perfect combination of hard alcohol that you will reach that new plateau of transcendence that I reached. But be forewarned of the great tragedy of the Mystery Bottle: once you get that perfect blend, you'll have no idea what's in it in order to recreate it. But you'll spend your life trying to get that flavour again. The whole experience is both haunting and beautiful because of it.

POINT VS. COUNTERPOINT

POINT

Twilight: The Greatest Book of All Time?

COUNTERPOINT



AMANDA LEDUC
TWIHARD

The single greatest set of books of all time is without a doubt the Twilight Saga! The single greatest movie, with the best looking male lead character of all time is also without a doubt *Twilight*!

There is no girl who wakes up every morning and thinks to herself "I sure hope I don't get swept off my feet and fall in love and live happily ever after with a good-looking, kind, caring and loaded prince charming". Even if a girl says she doesn't, she just hasn't realized it yet.

The story portrayed in *Twilight* is the unlikely story of how an average normal girl (Bella Swan) and a ridiculously good looking vampire (Edward Cullen) fall in love. It's romantic, it's exciting, it's adventurous and it's filled with really unbelievably good looking vampires. The vampires are tall, strong, smart, handsome and sparkly ... what more could one ask for in a man?

Now that I have convinced you with no question that *Twilight* is the best thing EVER, I will continue by questioning the integrity of the poor souls who disagree with me.

Joonha - Why on earth would you believe anything Joonha tells you? I believe that he is a closet *Twilight* fan. Have you checked out his hair lately? Isn't it oddly reminiscent of Edward Cullen's bronze tousled hair style? This hair style comes naturally to Edward, but Joonha actually wakes up and styles his hair this way each morning. Seems to me like somebody is trying to imitate Edward...

Kevin - Let me give you one piece of advice; don't ever believe anything a short person tells you about *Twilight*. Kevin happens to be below the mark of 5'6" which should cause you to question his motives on attack-

ing *Twilight*. Edward Cullen is over 6" tall and is idolized by females all over the world; Kevin is clearly hating on the attention received by tall males such as Edward and thus chosen to attack them with his poisonous words.

Jon - Jon disagrees with everybody on everything all of the time. He's a crotchety old man hiding inside a university student's body. Come to an Iron Warrior staff meeting and you'll see his questioning and constantly opposing nature. I'm sure that if I decided to argue on the Counter-Point side of this article, he would write on the Point side just to go against me.

Alex - Alex has admitted to me that she has only read the first ten pages of *Twilight*. That means that she does in fact believe in love and wants to find her Prince Charming. Unfortunately, her copy of *Twilight* was stolen by a rowdy bunch of pirates and she never got to finish reading it. She's only arguing against me because she wishes that she had read the whole *Twilight* Saga (including the un-released version) like I have.

Yousif - Yousif doesn't know how to cook; he goes to the plaza for every meal and that's not healthy. He is also deathly afraid of vegetables and can't name the four food groups. Clearly, due to his lack of proper nutrition, his brain isn't functioning properly. This brain malfunction is causing him to question all that is good in this world, including *Twilight*. Yousif needs our support in the form of cooking lessons and vegetables to help his mind work properly and see the light in *Twilight*.

Mikayla - Mikayla is one hell of a sly devil. She may appear to be unassuming and innocent and thus you will want to believe her, but do not be fooled my friends! Evil lies inside this small girl and her word should never be taken for the truth. She is trying to poison your mind with negative words about *Twilight* in her attempt to gain support and head for world domination.

ping Bella from displaying any independent action. She doesn't even seem to resent this, which any person with an ounce of free will should. No healthy relationship is so entirely one way.

Now let's consider how little value Bella places on her own life. She does have some friends other than Edward, and although her parents are separated, she keeps in contact with her mom who she formerly lived with, and lives with her dad. She's in high school, and presumably has some plans for her future. Apparently, once Edward came into the scene, none of this is overly important. She decides that she wants to cast all of this aside to become a vampire, and be with Edward forever. I'm sorry, but forever? She's all of 17. How many people had a boyfriend/girlfriend at 17 who they now know is NOT the person for them? This isn't as if it is like marriage, where you can get divorced. Once she's a vampire, she's a vampire for eternity, no going back. Does the life available to her if she stays human, not to mention the people she would hurt if she disappeared, not matter to her at all?

Apparently the plot summary of this story should be: a girl finds the perfect boy to protect her and tell her what she has to do. She tries to throw away any chance of having her own future to stay with this boy. She is incapable of doing anything without this boy's protection. Yes, this is a wonderful message to send to teenage and preteen girls.



ALEX GIROUX
BITTER 4TH YEAR

I hate to admit it, but I got bored on my last work term. That doesn't happen to me very often. To make matters interesting, I happened to get bored while in Waterloo for the weekend. And there was a copy of *Twilight* on the floor of the place I was staying.

So what do I do? I pick it up and start from Chapter One.

And three pages later, I WANTED TO GOUGE MY EYES OUT. You cannot UNREAD something. If I could have recorded over the 30 seconds it took me to read those pages, I would have. But I was still bored, so what do I do? I KEPT READING. Because sometimes, I'm stupid.

I finally quit somewhere around 15 pages in. Now, what did I learn in those 15 pages? Two things: one, whatserface is a whiny git who ENJOYS being miserable, and two, whasisface is the most beee---yooooooooootiful thing in the world, and he sparkles. Let me explain why those things, in combination, make for a terrible book.

Let's talk Bella.

1. Bella is a whiny git. Protagonists don't have to be lovable people all the time, but you shouldn't want to hate their guts after the FIRST PAGE. And by jove,

I loathed Bella by that point. I had to take a break at that point to think of terrible things to say about her. I'm not allowed to print any of them. They were.... creative.

2. I can't even go into how much I hate Bella for being miserable. Like, omg, I am, like, a terrible person. SHE HAS, LIKE, DEEP FEELINGS. But I had a low tolerance for teenage angst even when I was a teenager. In high school, I wore black not because I was emo or goth, but because when you're the type of kid who will be entertained by a tree, your parents tend to insist on not buying you stuff that stains. And black t-shirts are hard to stain.

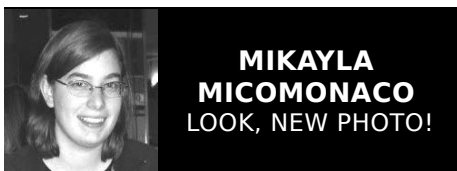
Now Edward. Sorry, Eddie. Whatever. There's really only one point I have to make about this one:

Real Men™ do not sparkle.

Now, ok, this is a generalization, and a pretty sweeping one at that. But the only guy I've seen who sparkles is a Ken doll one of my friends had when I was about eight, and let's face it - sparkly or not, Barbies are meant as projectiles. And here's another thing about the sparkling - if being around your boyfriend on a sunny day means you need to wear sunscreen, there might be a wee bit of a problem here, ya know? Just maybe? I mean, think about the potential implications. Actually, don't think about the implications there, since I think I just managed to creep myself out.

I'm going to go think happy thoughts now.

COUNTERPOINT



MIKAYLA MICOMONACO
LOOK, NEW PHOTO!

Although there are many ways to show how *Twilight* by Stephanie Meyer is a terrible book, I am going to focus on the Bella, the female protagonist.

Without the vampire, Edward, who Bella has fallen in love with, it seems that she would never be able to survive a single day. She has to save her from being mugged, getting crushed by a car, killed by evil vampires...

Ok, I'll admit that I don't think I could handle evil vampires either, but I think things like not wandering around alone in a strange city should be common sense. Especially for someone like Bella, who allegedly grew up in a big city. Bella's in a city she's never been to before with friends, then wanders away from them, a bunch of men try to mug her and a vampire pops out of nowhere and saves her. Bella's in a parking lot, an out of control car comes to crash into her, the vampire saves her. How could any of us possibly survive without an overprotective vampire shadow? Apparently Bella can't.

Bella is also hopelessly controlled by Edward. He disables her car to keep her from going places that he considers dangerous. In their relationship, Edward is the one who's always right, and he enforces this by stop-

COUNTERPOINT



JON RADICE
THAT GUY AT THE
BUS STOP

I'm going to assume that my fellow counterpointers have covered a few of the most glaring problems with *Twilight*: the softening and perfection of a male-female relationship, the fact that Stephanie Meyer is looked down upon as a horrendous writer by many other authors (search Steven King *Twilight* and see how he feels about Stephanie and the series), and that she is destroying the longstanding tradition of vampire canon (To quote myself from a previous *Twilight* rant "Vampires don't sparkle, they can't go out in the day at all. And they still manage to seduce a boatload of chicks. They're made to be pimps!"). I'd rather hit the root of the problem with the *Twilight* books.

And it's the fans themselves.

I'm not a fan of when the book du-jour comes around and everyone starts singing its own praises. I hated when Harry Potter fans did it, I hated it when Dan Brown fans did it, and I hate when *Twilight* fans do it. But the funny thing is, I've argued the merits of all three series, and no one stands so vehemently for their book than *Twilight* fans. I've never heard a coherent defense for the book from anyone and in fact, the only response I usually get is a goosed "Well who cares what you think?" and "Well what do you know" as a response.

But here's where it gets fun.

While snooping around the internet I found a fun little forum called *twilight-sucks.proboards.com*. I thought to myself "Well, I can get a few cogent arguments that others have overlooked." What I got was sheer horror.

There is this one thread that lists all of the events that have transcended between fans of the book (Twihards) and people who oppose the book (Antis) that could be considered criminal (Google 'Twihard Attack Directory' to take a look). The list starts off with small things, name calling, being stalked, harassment over the phone, but then they start to become more and more morose. Beatings with a bat, broken arms, attempted drownings, attempted throat-slittings. There's a story of this seven-year-old girl that told her older brother's girlfriend that she finished reading the first book and that the writing was pretty bad. She got her gold fish bowl thrown across a room and the fish stepped on. Stories of people getting choked after school for saying the book was average. Breaking toes in Hot Topic. Being pushed down the stairs (twice!). Getting beat with a bible. Is it any wonder that these *Twilight* fans haven't found their Edward yet?

Of course, this is coming from an anti-*Twilight* board, but even if half of the stories were made up, there are still about 30 cases of Twihard hate crimes. All over a freaking book for some reason!

So say what you want about the writing, the plot or whatever, the real problem behind *Twilight* is that the fans are criminally insane.

Tin Soldier Gets Around

Our Staff's Fine Home Towns



MATT CASSWELL
COMPLETELY
UNBIASED

Timmins? Saskatoon? Kitchener? Where are these hick towns you ask, and why do you care about them? These hick towns are the places where our staff originate from, some being absolutely disgusting, while others are loving and pleasant. Join us this week for our trip around the world as we visit eight communities, big and small, pleasant and diabolical, where our writers and staff come from. Each town has also been assigned a star-based rating, allowing you easily identify good places (high star ratings), and bad places (low star ratings).

* Saskatoon, Saskatchewan:

Alex Giroux

Saskatoon, Saskatchewan – a place that Microsoft Word's spell-check doesn't like, and that took me a couple of times to type out correctly. Most people have probably heard of this place. It's not the capital of Saskatchewan, but it's the biggest city – and that's all it has going for it. With high crime rate, bad weather, and being overly north and overly flat, there's no reason someone would want to visit this place. There's no hockey teams, no football teams, no baseball teams... it's pretty much a constant yawn. A quick Wikipedia read, and it turns out that one of the city's prime attractions is a Galaxy Cinema movie

theatre downtown. Random fact: the city is also sister cities with Kabul, Afghanistan.

***** Beamsville, Ontario:

Matt Casswell

This town is somewhere between Hamilton and Niagara Falls along the QEW, and you can see Toronto across the lake. +1 for being near substantial stuff. There's nothing in this town either – a Tim Horton's, a McDonalds, a grocery store, and a Home Hardware make up almost all the major businesses. However, the town is in the middle of the Niagara Wine Country, and has produced many award-winning wines and Ice Wines. +2 for wine. The town is also near several other small towns, such as Smithville, which some members from the Exec team visited a few weeks ago for Poultry Fest. +3 for Exec appreciation. The town also features an annual Strawberry Festival. It's recommended you visit.

**** Kitchener, Ontario: *Tim Bandura,*

Jon Martin

Kitchener is an exotic location to the South of Waterloo. With its streets paved in gold, bustling city life, singing birds and beautiful flowers, and VERY friendly people, Kitchener is high on the list of places you should visit. Downtown Kitchener is filled with many lovely boutiques and eating establishments that offer a friendly atmosphere at reasonable prices. Be sure to check out the nightlife. With low crime rates, it's completely safe, and sometimes recommended by locals that you walk around by yourself at dark alleys at night.

***** Dubai, UAE: *Yousif Al-Khder.*

They have a seven-star hotel, so automatically this place gets seven stars. It's awesome – they have EVERYTHING there – an underwater restaurant, a indoor ski lift, a giant EVERYTHING. Too bad the economy killed it all. :(But it is still well-loved by all.

* Timmins Ontario: *Amanda LeDuc*

Timmins is about as North as Victoria is West. Along with the Northern Ontarian problems of unemployment and being a dumpsite, Timmins should have a travel advisory issued for it for two main reasons:

1. People who live there like Twilight (please see our PCPCPCP on page 3)
2. There's a country singer there who I have been told not to name. We shall call her Goose.

Yes, based on a very scientific study and a series of observations on people from Timmins, it can be determined that everyone there likes Twilight. They like it so much, in fact, that harm is inflicted on those who can't recite the entire book in their sleep. Secondly, while she may not be as bad as other Canadian singers such as Céline Dion, Goose is from Timmins, and everything about her is proudly plastered everywhere. So, Timmins is actually a wonderful place to visit if you like Twilight, country music, and polar bears. Otherwise, it wouldn't hurt to skip it.

* - **** Toronto, Ontario: *Jay Shah*

Toronto gets a rating anywhere between 1 to 4 stars. In general, Toronto is pretty awesome, so its rating is a function of: Is there a

Garbage Strike? Is there a TTC Strike? Are there any new taxes being introduced today? Did the Leafs beat the Sens or the Canadiens last night? Is there a snowstorm? If yes, was the army called in? I don't need to recommend travel to Toronto, since you're going to be going there at some point anyway.

***** Waterloo, Ontario:

Mike McCauley

Those who go to the University of Waterloo also have their home town being Waterloo. You're already here, so you're clearly going to visit it. Surprisingly however, many people don't know what the city itself has to offer. Waterloo is home to a number of breweries, St. Jacob's Farmers Market, and a lot of engineering students (of course). If you've never been to St. Jacobs, you really should go. It's full of local food, it's inexpensive, and it's a great time had by all. Another local attraction is Phil's, on King Street across from Wilfrid Laurier University. A well-known establishment, Phil's is known for its high-class environment, enchanting atmosphere, and of course, beautiful women.

**** Ottawa, Ontario:

Daniel Armstrong

We finish our whirlwind tour of the world by visiting our country's capital city, Ottawa! Filled with bureaucracy, French things, patriotism, separatism, and the infamous Byward Market, Ottawa is even a city that Marc Tan calls home. +1 for Leather Jacket Models. And if it's good enough for Marc Tan, then it's gotta be good enough for me!

Not Enough Desks

TOO QUIET TO STUDY From Page 1

The rationale behind this plan is that (claustrophobic) students, who choose to book these rooms and then study in them, find them too smelly and claustrophobic.

New group study areas will be introduced, facing the Ring Road, with fancy study tools such as whiteboards. This probably means that I will get to read junk written by a previous group...

What about DP?

After spending \$3 Million on main floor renovations in DP, it just dawned on the administration that the rest of the floors need modern cubicles and more of them! Expand-

ing study space means that book shelves will need to be relocated. One of the options is to use the underground area between DP and AL (Arts Lecture Hall) as a storage space. All of those adventure-loving and wild engineering students should not get excited because as far as I see, there is still no chance for us to explore the mysterious, not-quite-forgotten underground tunnels beneath the campus buildings.

Student input still needed

As always, student feedback on the changes and new ideas are still needed; the input will be unconsciously screened, censored and discredited based on their current views about the aforementioned changes.

WEEF's Vision 2011

YENOM LEATS EX-ADVISOR TO BERNIE MADOFF

WEEF has just established its 2 year plan on how to stimulate the interest that we currently make on our principal amount of \$8.55 million. The plan is as follows:

- 1) Borrow 855 000 000 from an American Bank, putting up the principal amount of 8 550 000 as collateral (1:10 leverage ratio)
- 2) Go to a foreign bank that is unaware of our American loan, and leverage again at a 1:10 ratio, for a total of \$8 550 000 000 dollars in borrowed money.
- 3) We will invest this amount in extremely risky derivatives (or better yet, options on derivatives!)

which have a highly unstable return of between -100% and 200%.

4) Based on an average return 50%, we will make a yearly return of 4 275 000 000 dollars.

5) If we split this equally among three terms, then we can payout a sum of 1 425 000 000 dollars

Our spending plan for this money is to pay for everyone's tuition, subsidize pub crawls, and return \$75000 to every student every term. A new WEEF Pub is being opened in E5, which will serve \$5 000 000 in 'milk kegs' for free, after which it will start charging regular rates. We hope that you support this Vision 2011 plan!

THE TIN TRIBUNAL

Sheep on the Highway, 3A Mountain Navigation



Michelle Croal
No typing for me
"I'm sharpening my pencil!"



Jon Radish
Italian pronunciation FTW
"Moving in with my Amish neighbours"



Amrita Yasin
Disappointed reader
"Bonfire with Twilight fuel"

Stuart Pearson
Flailing paranoia
"Protecting my head."



Yousif Al-Khder
Not a terrorist
"01010011
3RR0R"



"How are you preparing for Y2K10?"

ENGINEERING SOCIETY EXECUTIVE REPORTS

VP Finance Report



ERIC COUSINEAU
VP-FINANCE

Well it's been a busy term, but more importantly the most awesome term ever!!! There have been lots of things going on, and all of it for you! I had an awesome time this term, and I hope all you did too!

This term I took the initiative to try and make the leather jacket more attractive to students, and I believe that I succeeded in this goal. After friendly discussions with Retail Services, it was apparent that they were just as keen as I was to increase sales, and show students that they really do care. For this, I would like to say, "Thank you, Retail Services!" They were able to reduce the cost of the jacket on Jacket Day from \$415 to \$390 (both prices before taxes). I was one of the ones that bought a jacket, and you will see me wearing it in the winter! (Perhaps with one of our attractive scarves from Novelties)

Flasks are in, and they look great! Thanks to everyone who ordered them!

The class t-shirts have been sent in to the company. I am waiting to hear back from them about the date of return. I will let all classes who ordered know as soon as I find out. I hope you are excited, I AM!

The Novelties Sign Design has been submitted for approval to the Faculty,

and I am waiting for that. Then we can keep moving forward! It's going to look awesome, and most importantly..... the UGLY poster will be gone!

As you might know the Event-A-Tron has been out of commission all term, and we have been waiting since mid June for Engineering Computing to fix the problem with their server. I have looked up a few prices for new televisions, but I am re-evaluating the current implementation of the Event-A-Tron and will continue to work on this over the Fall Work Term and into the Winter. My current goal is to have new TVs mounted on the wall, or at least a clear path to having new TVs up. In case you didn't know, these TVs would be displaying a sequence or images advertising events and telling you anything we want you to know. So keep your eyes up and look out UW Eng!

The Novelties Sale on Thursday July 16th and Friday July 17th was a huge success! I will let everyone know the total revenue of the sale at Potluck, but preliminary estimates indicate AWE-SOMENESS!

This has been the most enjoyable term I have had since I got on campus, and I know Winter 10 will be an even better term. Thank you everyone, and I hope to keep in contact with you over the work term! Email me anytime at asoc_vpfin@engmail.uwaterloo.ca, I will always appreciate hearing from you!

See you at POTLUCK! (Meeting 6)
- Eric "Ginger" Cousineau

VP Education Report



DAVID LIU
VP-EDUCATION

Hey A-soc,

As the term comes to an end, I'd really like to thank you for taking your precious time to read this report. Best of luck on your final projects, assignments and exams. So, here is a couple of updates and recap for the term:

Great turn out on the Debt Load Survey. 28% of the students took their time to fill in this valuable information for Dean of Engineering to review. The result will be used to further Engineering and future planning.

Course Critique is going smoothly as ever. The course critique reading session will be on Thursday, July 23rd starting at 4:30pm in CPH-3607. This reading session is to ensure that course critiques are fair and provide constructive feedback for the faculty.

One of the goals I wanted to achieve this term was PDEng online survey. Although this survey did not happen, a couple of valuable ideas came out of it. Jay Shah and I are now looking to implement course critiques for PDEng courses, similar to all of our other core courses. Also, students' opinions and feedback were all received by the high profile external reviewers during the PDEng independent review. They will be submitting the com-

pleted report, including their recommendations to our dean by September 1st. The result of the review will be available to public in the Fall '09 term.

Another goal I had this term was to put more emphasis on the academic class rep role. We held 2 academic rep meetings with one more meeting to come. These reps bridge the gap between the students and Faculty. As such, it is important to keep in touch with them and exchange general issues such as co-op, PDEng and exam scheduling. 1st year reps found the meetings to be especially helpful.

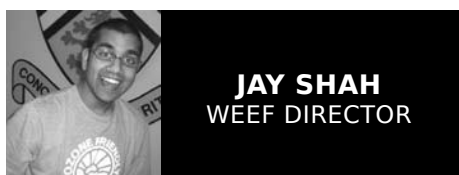
We had 3 guest speakers this term and each talk had a hundred attendees. We had Chris Cummings, Larry Smith and Andy Thibodeau. Each of them gave us some wise advice on how to approach our career and life in general. Moreover, these events attracted diverse UW students and expanded the outreach of Engsoc.

I will continue to push PDEng improvements, the role of academic class reps and hosting guest speakers for the terms to come.

Lastly but not least, I must say I really enjoyed being part of EngSoc and taking on the VP Education role. It gave me different perspectives that I never thought about. However, I still have so much room to improve and my weaknesses follow me. So if you have any ideas, suggestions for me or EngSoc, let me know at s14liu@uwaterloo.ca.

See you...

WEEF Report



JAY SHAH
WEEF DIRECTOR

WEEF Funding Council met on July 7th. It was a grueling 3 hours, and we had to make some tough decisions, but the funding allocation for this term is complete. The table on right outlines the decisions that Funding Council made. (Note that funding council is comprised of one rep from every class on campus- it's 100% students!)

If you would like to discuss any of the amounts allocated and why the funding council made the decisions they did, I would be more than happy to meet with you or discuss it via email. Please keep in mind that funding council had some very tough decisions to make this term as a total of \$252 666.20 was requested, and only \$85 000 was available to allocate.

We have encouraged all recipients

of funding to spend their allocations as quickly as possible (while still being prudent) so that an immediate impact can be felt by students today. This is WEEF's version of what Larry Smith calls "Priming the Pump".

WEEF's Board of Directors held their tri-annual meeting on July 18th. Some action items that came out of this meeting were increased communication about the WEEF and E5 love affair, creating a corporate donations pamphlet that students can present to interested employers to stimulate additional contributions, and including an info sheet regarding what WEEF is in incoming students' welcome packages.

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

Questions, comments or suggestions are always welcome - email me at weef@eng-mail



Michelle Croal

Pocahontas, Hairiel, Mulan, Belle and Jasmine listen to the Nano Steering Presentation at last A-soc meeting

WEEF Funding Allocation

#	Page	Proposal	Requested	Allocated
Architecture				
1	3	Acm Laboratory Computers	\$36,953.00	\$ 8,694.82
2	4	Rhinoceros 3d Lab Kit	\$975.00	\$ 975.00
<i>Total</i>			<i>\$37,928.00</i>	<i>\$9,669.82</i>
Chemical Engineering				
3	5	Computer Aided Teaching Room Computer Upgrades	\$52,802.64	\$ 13,100.00
Civil Engineering				
6	9	Civil Stapler	\$17.99	\$ 27.99
7	10	Instrumented Truss Construction System	\$3,802.45	\$ 2,201.00
<i>Total</i>			<i>\$3,820.44</i>	<i>\$ 2,228.99</i>
Electrical and Computer Engineering				
8	12	Laboratory Monitor Upgrade	\$5,400.00	\$5,400.00
9	13	Linux Computers to Replace Sun Computers	\$4,600.00	\$2,300.00
10	14	Nexus Computer Upgrade	\$8,800.00	\$2,200.00
<i>Total</i>			<i>\$18,800.00</i>	<i>\$9,900.00</i>
Geological Engineering				
11	15	Laboratory Specimens	\$9,010.00	\$ 2,250.00
Management Engineering				
12	16	Dale Carnegie Course for Management Engineers	\$15,000.00	\$ -
Mechanical and Mechatronics Engineering				
13	18	Rankine Power Cycle Teaching Laboratory	\$9,411.00	\$ 9,411.00
14	19	Robotics Platform for Me 595	\$8,675.00	\$ 3,435.00
35	54	Power Electronic Modules for Power Engineering Lab	\$27,487.00	\$ 3,966.00
<i>Total</i>			<i>\$45,573.00</i>	<i>\$ 16,812.00</i>
Systems Design Engineering				
15	21	Bench Equipment for Teaching Lab	\$4,097.50	\$ 4,097.50
Departments Total			\$187,031.58	\$ 58,058.31
Engineering Student Teams				
16	22	Chem-E-Car	\$600.00	\$ 600.00
17	23	Clean Snowmobile Team	\$6,400.00	\$2,850.00
18	25	Concrete Toboggan 2010	\$3,000.00	\$ 1,250.00
19	26	Engineering Orientation	\$2,000.00	\$ 500.00
20	27	Engineering Society Guest Speaker	\$300.00	\$ -
21	28	Engineers Without Borders	\$580.00	\$ 580.00
22	29	Formula SAE	\$4,700.00	\$ 2,200.00
23	30	IGEM Competition	\$1,750.00	\$ 900.00
24	32	The Iron Warrior	\$1,355.00	\$ 450.00
25	33	Midnight Sun	\$6,500.00	\$ 2,300.00
26	35	North House (Solar Decathlon)	\$4,832.00	\$ 2,750.80
27	37	STEP - Bike Generator + Solar Cookers	\$1,866.50	\$ 1,000.00
28	41	University of Waterloo Nanorobotics Group	\$6,100.00	\$ 1,800.00
29	43	University of Waterloo Robotics Team	\$3,809.71	\$ 2,000.00
30	44	University of Waterloo Underwater Technology Team	\$5,440.00	\$ 1,750.00
31	46	UW Intelligent Robotics Experiments Group	\$7,490.52	\$ 1,500.00
32	48	UW Micro Aerial Vehicle Team	\$2,900.00	\$ 2,000.00
33	50	Waterloo Engineering Competition	\$510.89	\$ 510.89
34	52	Waterloo Space Society	\$5,500.00	\$ 2,000.00
Student Teams Total			\$65,634.62	\$ 26,941.69
Grand Total			\$252,666.20	\$ 85,000.00

POINT VS. COUNTERPOINT

POINT

Should Credit be an Option
for Tuition Payment?

COUNTERPOINT

**MIKAYLA
MICOMONACO**
2B ELECTRICAL

University students should be allowed to pay their tuition on credit cards. The convenience, the ability to collect reward points, co-op causing students to be far from campus when tuition is due, and the large expense, are some reasons why credit cards should be an available alternative for students.

Credit cards are very convenient. You don't have to worry about bank transfers, setting up the university as a bill payment, or anything else, just stick the amount on the credit card. Also, it doesn't add any bills beyond what you pay on a regular month. As long as you pay it off when the balance becomes due, you won't have to pay any interest. Often, students are far away from campus because of co-op. The opportunity to pay tuition in person is unavailable because of this, as tuition is due before students return to campus. By paying tuition on a credit card, it doesn't matter where you are, or what your bank policy is about on-line money transfers.

Reward points are another good reason to pay tuition on a credit card. If your credit card accumulates points, that's a lot of points. Many cards accumulate points at 1 point per one dollar spent. Paying your tuition by credit card can help you to accumulate in excess of 5000 points. This could be put towards many things: a new laptop, iPod, a flight home if you live far away. It could even be used for groceries! Who doesn't like free food? As long as you pay off your balance by the time it is due, you won't accumulate any interest charges. This means that you've accumulated points that you can use to buy something without it costing you any extra. This cannot be a bad thing. Yes, it takes lots of points to get good rewards, but more than 5000 points

will go a long way, and certainly a lot further than no points at all.

Any way you look at it, tuition is very expensive. For some students, it is impossible to pay this huge expense all at once. If you put part of your tuition on your credit card, you can delay having to pay that part by more than a month. Maybe you need that last co-op paycheque to help cover tuition. If you have a part time job during the term, this could let you accumulate a couple more paycheques, which would certainly help. I know, most of engineers don't have a part time job during term, but lots of other students do. Being able to put a part of tuition on a credit card, dividing up the expense, could certainly help some students. It would also make the drop in your bank account balance look less scary. Somehow, paying \$5,499 (or whatever you paid for this term) over two payments seems slightly less scary than one huge payment.

Other reasons to use credit cards to pay tuition include the usual reasons that people use credit cards. Purchases made with credit cards are more secure, as you are spending the bank's money, instead of your own money. If there is a mistake, or something goes wrong, you have time to make sure that it is fixed before you actually use your own money to make the payment. Making purchases on your credit card and paying off the balance promptly helps to boost your credit rating. A good credit rating will help when trying to apply for loans and mortgages in later life, so you might as well build it up as much as you can while you have the opportunity.

Therefore, for many reasons, including convenience, the ability to collect reward points, the option of splitting up tuition payments over a month long period, the security of the credit card, and the ability to build up your credit rating, the option of paying tuition by credit card should be allowed. Credit card payments provide students one more option for covering the difficult expense of tuition.

**AMRITA YASIN**
3A CHEMICAL

I am a student. I buy coffee at CnD and not Tim Hortons because it saves me 70 cents. I am an Engineering Student. I pay more than 5 grand in tuition each term. I have a credit card that earns interest 19.75%. Now someone's coming up to me and telling me that I can pay those 5 grand by a credit card. Just doing the math that means my first interest payment will be \$82. I think this is a ridiculous idea!

University of Waterloo currently accepts tuitions through cheques, bank drafts or bank payments. Lately many other universities such as Dalhousie, St. Thomas who previously allowed payment of tuition through credit card have eliminated the option. Universities in New Brunswick, Alberta, Calgary and British Columbia also plan on removing this option. I do not see any need or reason for allowing students to pay tuition with credit cards.

I think being engineering students at UW we have less excuse than other students to argue for payment of tuition through credit cards. All engineering students have co-op terms which are paid, for most of us if not all. While not all students earn the same amount of money, I think if we manage our money wisely we should be able to save for our tuition. Psychology has its role to play too. Knowing that I will not be able to pay my fees if I do not have enough in my bank account makes me more conscious and forces me to budget each pay cheque and each month so that I have the tuition fee available. If I know that I have the alternative of paying all or sum of it through a credit card payment that will not be due immediately, it will relax my nerves and even though unconsciously, I might not be as diligent with money as I am right now.

If students do not have enough to pay tuition there are always other ways such as provincial student loans which do not accumulate interest until after the study period is over, bursaries and grants, UW short term student loan programs etc.

Some people argue for this system putting forward excuses such as credit history and such: Pay the tuition with a credit card and then pay your credit card bill and wholla enjoy all those fancy benefits that your bank offers and build an awesome credit history! This argument only works for people who have the money already and if all of us had the money for all our expenses why would you need credit cards for anything at all in the first place? This system can be abused to a far greater extent. Use of credit card is a routine matter for a lot of us. We sometimes use credit for transactions as low as a dollar! If given the option most of us will probably avoid spending time and effort searching for resources such as grants, bursaries, and student loans to be able to pay tuition and not think twice before using our credit card to pay \$5000. The more the loaned amount, the more interest it accumulates and the higher the monthly payments are, and if I do not have the money to begin with how will I pay the monthly payments?

Have we not recently seen, and as co-op students we are not still suffering from the consequences of economic recession that hit the world last year? The bottom line of recession is that people and institutions spend huge amounts of money which they do not have and will not have either. Aren't we devising yet another scheme of economic instability? By introducing this system some students will likely go into a debt of 8 grand per year! Is it really worth it?

Rather than ranting excessively about low salaries and ineffective student loans system I think we all should just learn to manage our budget wisely and save according to our priorities.

**Sandford Fleming Foundation**

Professionalism.
Leadership.
Communication.

There's more to an engineering
education than engineering.



*Congratulations to the winners and all the participants
in our first ever Waterloo Engineering Competition Week!*

SFF Debates	SFF Technical Speaker Competition	Junior Design Competition	Senior Design Competition	Consulting Engineering Competition
1 st Jeffrey Aho Aditya Sharma, Mechatronics	1 st Rana Tehrani Yekta, Civil	1 st Ray Zhou, Mechatronics Fred Ting, Mechanical Wilfrid Ngo, Mechatronics James Anselm, Mechatronics	1 st Daryl Tiong, Mechatronics Sean Anderson, Mechatronics Kirk MacTavish, Mechatronics Brian Cheung, Systems Design	1 st Artem Burmistrov, Systems Design Oleg Artemenko, Systems Design Kyle Collier, Systems Design Gregory Niestrawski, Systems Design
2 nd Jason Tang, Systems Design Simon Chen, Systems Design	2 nd David Ng, Mechanical 3 rd Kim Osborne, Mechatronics	2 nd Mark Khaitman, Computer Frank Zhao, Electrical Leon Rabinovich, Mechatronics Jaspreet Dhillon	2 nd Maple Leung, Mechanical Jeff McClure, Mechanical Cody Prodaniuk, Mechanical Nevin McCallum, Electrical	2 nd Phuong Dinh, Mechanical Erik de Jong, Mechanical Kathleen Lui, Mechanical Goran Vlacic, Nanotechnology

Our next competition will be held in Fall 2009. Stay tuned for more details.

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

Winology 102: Sparkling Wine and Champagne!



AMANDA LEDUC
2B MANAGEMENT

Sparkling Wine and Champagne are typically consumed as a celebratory drink at such events as weddings, honeymoons and birthday parties. The terms sparkling wine and Champagne are often used interchangeably; however, this is not the case! One sure way to tell a novice a wine drinker is if they do not know the distinction between these two wines. After reading this article, you will never make this mistake again.

Sparkling wine is a wine with a significant level of carbon dioxide contained within it to make it fizzy. The carbon dioxide may result from natural fermentation in a large tank designed to withstand the pressures involved or as a result of carbon dioxide injection. Essentially, sparkling wine is created when a yeast and sugar solution is added to a dry table wine. The resulting fermentation creates tiny bubbles of carbon dioxide in the bottle.

Sparkling Wine is the broad category, a supertype if you will. Champagne is a specific type of sparkling wine, a subtype. Champagne is actually a region in France which is known to make the best sparkling

wines in the world and uses a unique method called "methode Champenoise". Thus, only sparkling wines produced in Champagne, France can legitimately call themselves Champagnes. **The Rule:** All Champagnes are sparkling wines, but not all sparkling wines are champagnes. Got it?

The classic example of a sparkling wine is Champagne, but many other examples are produced in other countries and regions, such as Spain, Italy and South Africa. The United States is also a significant producer of sparkling wine. In fact, California has had many French Champagne companies open wineries to make American sparkling wine according to the "methode Champenoise". Recently the United Kingdom, which produced some of the earliest examples of sparkling wine, has started producing Champagne-style wines again.

Sparkling wine is usually white; however, rose and reds do exist. Also, the sweetness of sparkling wines can vary just as it does with table wines. The sweetness of sparkling wines uses the same sweetness index discussed in previous articles; however, sparkling wines have their own adjectives to describe the sweetness. The term "brut" describes a very dry

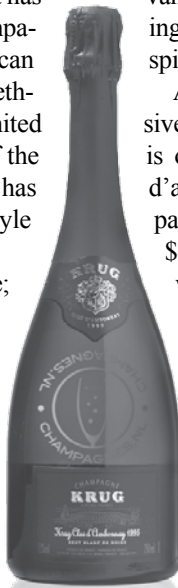
sparkling wine (a 0 on the scale) the term "doux" describes sweeter varieties (1 or greater on the scale).

The price of sparkling wines vary. One of the most popular and inexpensive sparkling wine available in the LCBO is "Brights President Dry" and it sells for a mere \$9.50. As far as sparkling wines go, it's not bad for the price if you like a sweeter wine. It's a 3 on the sugar scale and has a typical alcohol content at 12%. It is described as being "Golden colour; citrus and orange peel with vanilla in aroma and flavour". The serving suggestion is "Finger foods; aperitif; spicy food".

As a point of interest, the most expensive sparkling wine sold by the LCBO is of course a Champagne. "Krug clos d'ambonnay blanc de noirs brut Champagne 1995" is sold by the LCBO for \$4529.00 per bottle. I wonder what that would taste like...

Back to reality, while keeping in the student budget, "Brights President Dry" is likely the most economically friendly option you will find and I suggest you try a sparkling wine at your next celebratory event ... perhaps after your last exam!

Cheers,
Amanda



Jhalak: A Glimpse of India



AMRITA YASIN
3A CHEMICAL

I am a huge fan of school formals where I can enjoy delicious food, be entertained and dance my life away. I attended one such formal 'Jhalak - A glimpse of India' organized by UWIC - University of Waterloo Indian Connections on July 10 in RIM Park Hall. The event started a bit late, keeping in with the tradition of all South Asian events. The event was loaded with performances and proved to be a very healthy opportunity for UW students to display their talents. The hosts did an amazing job of keeping the audience entertained with their humorous conversations. The event started with a Bharatnatyam (South Indian) dance performance, followed by another dance performance by a larger and very well coordinated group of girls. This performance had a fusion of many dances including Bharat-Natyam, Bollywood and even some Western moves. Students also showcased their musical talents and there were some amazing singers who sang Urdu/Hindi songs from 1990s and early 2000s. I was swept off my feet by the guitarists and drummer who played very famous songs very skilfully.

At this point the audience would have attacked the organizers if they hadn't called for food. The menu had something for everyone with the vegetarian and non-vegetarian options. Following the food were some more performances; there was a satirical play of the famous legendary love story of Saleem-Anarkali. We also got to listen to some English songs sung by BSA (Bangladesh Student Association) band called Jaagran.

The closing Bhangra performance was undoubtedly the best performance of the evening. A group of girls and guys performed on a medley of old and new Punjabi songs. Their colourful clothes and energetic moves left the audience open-mouthed in awe.

The Chief Guest of the event was Karun Jethi, Vice Captain of Canadian Cricket Team. He appreciated the efforts of UWIC in putting together such a huge event, and for providing a platform for all students of Indian origin to come together and enjoy their common cultural heritage.

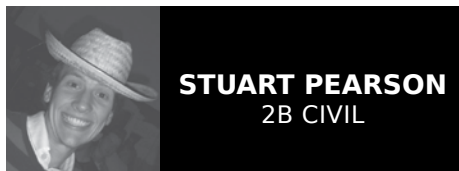
A unique aspect of this formal was that it was not only for students; I saw many students with their families and also some UW employees enjoying the show, bringing the number of attendees to 250, definitely one of the largest formals any student club had ever seen.



Amrita Yasin

**Bhangra group posing at the
Spring 2009 Jhalak Formal**

IW Gets Around: Elora



STUART PEARSON
2B CIVIL

In IW Gets Around, we try to look at student-friendly places to visit that make ideal weekend getaways or daytrips. In this issue of *The Iron Warrior*, we decided to shine the spotlight on Elora, a picturesque village located about 40 minutes north of Waterloo.

To get there from Waterloo, just follow Northfield Drive out past Conestoga Mall into the country for about 30km. It's a great drive in the country, and if you're feeling adventurous, it might even make for a nice bike ride. Alternatively, you can drive to Guelph and then go north on Highway 6 and then Wellington Road 7.

Founded over 100 years ago by Scottish settlers, 19th century architecture is still prevalent throughout much of the village, giving the downtown a timeless sort of feel not found in larger cities like Waterloo. Elora is located along the banks of the Grand River, and a prominent feature is the large waterfall on the edge of town that pours 80 feet down into Elora Gorge.

The Elora Gorge Conservation Area is one of the best places to visit if passing through Elora. It's a beautiful place to hike, with trails that follow the tops of the high

cliffs that line the gorge and even right down by the river. If you're looking for a thrill, you can even try kayaking or tubing down the turbulent river as it winds through the gorge.

Riding an inner tube is an awesome way to take in the spectacular scenery and have some fun while you're at it. It's only \$20 (plus deposit) to rent out tubing equipment, including a life jacket and helmet, which gives you access for the entire day. Floating down the river is a great way to cool off on those hot sum-



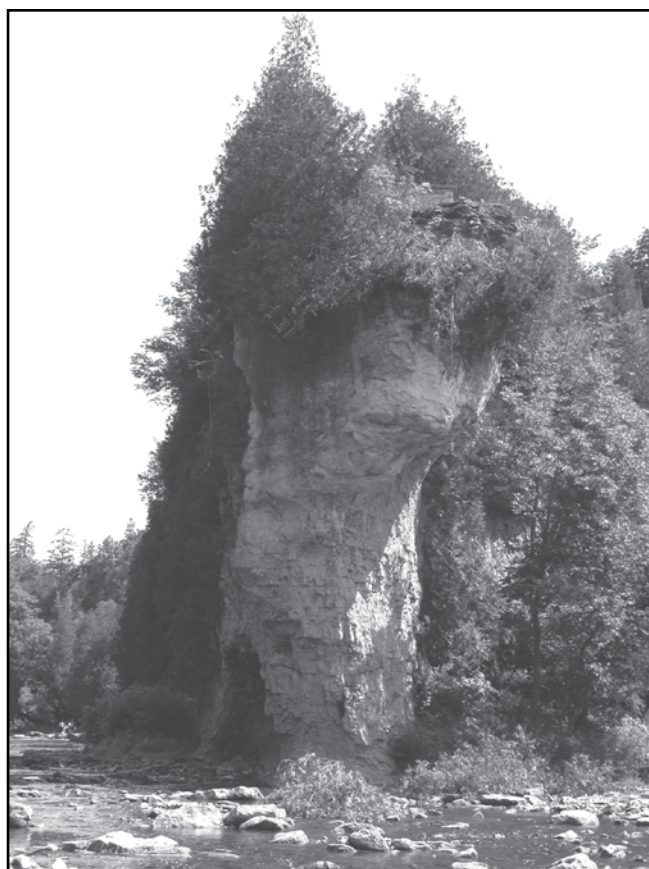
A tuber wipes out in the Grand River

mer days (I know we haven't had too many so far, but they're coming eventually!).

If you feel like sticking around for the whole weekend, the conservation area has 312 unserviced sites, 145 serviced sites with water, and 20 sites with electricity. Up to six people are allowed per campsite. There is also a lake and fishing opportunities are available at the park.

If you'd rather just saunter around the village, there is still plenty to see. Small pubs, gift shops, and specialty stores line the main street, and there are also several fancier restaurants that would be perfect for a more romantic dinner. I have visited Elora on numerous occasions with my family in all seasons, and I would have to say that my favourite seasons for visiting are either during the fall or just around Christmas. Before Halloween, the entire town gets decorated to suit the occasion, with cobwebs everywhere. Similarly, as the snow begins to fall, the village becomes adorned with Christmas decorations, giving the cosy pubs and shops a great atmosphere. In the summer, there's also a handful of great places to get ice cream.

Whatever you're into, and whatever time of year you visit, there's something for you in Elora...



Shaun Coleman

Lover's Leap, one of the many cliffs at Elora Gorge

Review Based on the Trailer: Where The Wild Things Are



JON RADICE
3A CHEMICAL

Just a quick question for the readers out there - is anyone as sick and tired as I am of Hollywood exhuming the best relics of our childhood in order to make a quick buck and an ostentatiously horrendous movie to boot? Everything from iconic video games (Street Fighter), to long running anime series (Dragonball), even to relatively obscure action figures (just last week they announced a Max Steel movie, remember him?) is getting a feature movie, and I'm not looking forward to any of them. Their plots are just shallow excuses for product promotions and CG graphics sprinkled with those catchphrases we all knew and got sick of decades ago. The actors are from the bargain bin, and these movies become such forgettable pieces of garbage that they can rehash essentially the same flick every few years that the public will watch it again without the slightest feeling towards the previous. And with the amount of comic and video game movies well into production right now, it seems as though the cavalcade of crap will continue for quite some time.

But wait! There's a diamond in the rough. An unlikely source sent to us to vanquish all the other steaming piles of celluloid filth and restore a little sanctity to my childhood memories. *Where the Wild Things Are* looks, but more importantly gives the feeling of being that impressive.

Firstly, let me outline my love affair for the director, Spike Jonze. Throughout my entire life, the outline of what was cool and what was innovative and what was the most imaginative has been easily dictated by Spike Jonze's work. In the

early nineties when my older brother got in to skateboarding, he brought home a borrowed copy of this awesome skateboard video 'Video Days' directed by Spike Jonze. I coveted that tape, probably watching it dozens of times; as all little brothers know, whatever the older brother did was instantly cool, and this was the video he thought was cool, making it instantly cool too. Fast forward a few years to when our family got cable. Outside of the Toni Braxtons and the Coolioes that were on repeat, there were a few imaginative, inspiring, and sometimes laugh-out loud videos. Sabotage by Beastie Boys - think a cheesy 70's cop drama, Da Funk by Daft Punk - The humanoid dog on the crutch walking down a New York street, Rocafeller Skank - The impromptu dance circle in the subway, and Weapon of Choice - Christopher Walken flying around a room; all of these memorable music videos stuck in my head to this day, all of them done by Spike Jonze. On top of that, the man helped create Jackass, filmed both of those movies, and went on to do great dark comedies such as *Being John Malkovich* and *Adaptation*. With a resume like that, not only am I not afraid of him stomping on my childhood Micheal Bay style, I expect this movie to have a certain level of grit and polish (and yes you can have both) expected from all of his other work. The man can do no harm; hell, he even made Kanye look like less of a jerk by directing the Flashing Lights music video.

The allure of this movie may be lost to

the people who never read this book as a child. Looking back at the book now, you'll find that it's a story of a kid that refuses to listen to his mom and is sent to bed without dinner, creates this fantasy forest, parties with giant monsters (in a grand rumpus fashion) and then returns home. Really not much to it, and on the surface it looks like a bad idea to make it into a movie. But this book had a lot of underlying connotations that separated it from the pack. Primarily, the book shows



A scene from the original children's book *Where The Wild Things Are*

children that while there may be monsters in your closet, under your bed and anywhere in the shadows, these monsters are not entirely bad creatures. Looking at the trailer and the book, these monsters would be scary to any child in Max's situation. But like our protagonist, us kids learn that by staring those fears head on, we realize that these big scary demons aren't so big or mean, and in some cases are nothing to be scared of at all. This book also showed us kids that sometimes the main character gets mad, things don't go his way, and he imagines his way out of bad situations. This painted the bleak

but true picture that the world is not full of smiling happy people all the time, as many other kids' books would have you believe, and that you can control how you feel when times get tough. All in all, the book really struck a cord with the younger --

Wait, I haven't actually talked about the trailer yet... I better get on that.

The first time I saw the trailer, I had chills running down my spine. The monsters were as if they were ripped from the book themselves. The screen is filled with a whole bunch of wild things; lumbering, and scary at first, but as the trailer progresses you see them express such a wide range of emotions from fear and dismay, to happiness and clumsiness. This indicates a perfect mix of CG animation and live action and a welcome change from many summer blockbusters; the action is on frame and crisp. In fact, the whole movie has that dreamy haze that is the trademark of Jonze, making the movie itself feel like a handful of old photos. Couple that with voices provided by Forrest Whitaker, Catherine O'Hara, James Gandolfini and Paul Dano alongside Catherine Keener, Mark Ruffalo and newcomer Max Records all to the tune of Arcade Fire and you have an indie movie-lover's wet dream.

The trailer itself is something magical, the shots and the emotion and the warm feeling that is brought out of it is serene. It's simultaneously dark and warm, light and serious, and I can't think of any movie that I've been more excited to see in a very long time. Oh, and also apparently a whole bunch of kids ran out of test screenings crying. The sadist in me thinks that based on that alone, the movie will be awesome. October 16 couldn't come soon enough! I'll be there on opening day, and expect anyone with a soul to be in line as well.

Wanted - Guinea Pigs

PETER ROE
DIRECTOR OF
EXCHANGE PROGRAMS

The Faculty Exchange Office is looking for students who would like to be guinea pigs or pioneers in our new exchange programs. We have a number of these, and they offer exciting possibilities. If you are wondering what you might do in the future, and if you are ready for a change from the normal routine of altering academic and work terms, give some thought to one of our new exchange programs:

1. Dual Degree Program between the Ecole Supérieure de Chimie, Physique, Electronique de Lyon, (CPE Lyon) and Engineering at UW. This is a program that needs planning, but will give you a Master's degree from France on top of the Engineering degree that you'll get anyway from UW. Why do it? It gives you qualifications as an engineer in the European Union in addition to the qualification as a professional engineer in Ontario. It does it with very little extra work, and only about six months extra time. You can be a trail blazer for this brand new program if you plan for it. It requires commitment to two exchange terms, normally 3A and 3B, in CPE Lyon, followed

by 4A and 4B at UW, and then a final abridged year in Lyon. When finished you will be qualified to work in Europe, or to apply for a doctoral program at UW or CPE Lyon. This is not a program for everyone, BUT, if you want to have truly international credentials, it is one that could be just what you need. Mull it over while you're on your coming work term, and come to the Engineering Exchange office for more details.

2. Exchange with IIT Delhi (the Indian Institute of Technology, Delhi). This is a new program which nobody has yet applied for. We all know that India is emerging on the international scene as a major power house. IIT Delhi is one of the absolute top places in India. Going there on exchange will immerse you in a culture that is radically different to Canada; it's not for the faint-hearted, but



Students register for class at CPE Lyon

is an opportunity for the adventurous that shouldn't be missed. This is another exchange opportunity that you can think about while on your coming work term, and one that will give you experience in a burgeoning economy that is bursting on the international stage.

3. The Czech Technical University in Prague. Here's an opportunity to study in the oldest technical university in Europe. Again, it's an exchange program that's not yet been used by UW students. We need pioneers to spearhead a stream of our students going there for one or two terms.

4. RMIT (Royal Melbourne Institute of Technology). Australia has always been a popular destination for UW Engineers on exchange. Recently it's been difficult to go there because of restrictions by our partners down under. However, a new agreement has been negotiated with RMIT, so what we need is a few engineering students who would like to study on the opposite side of the world. Think about it!

5. Zhejiang University in China. This is a brand new exchange program with one of China's top-ranked univer-



Indian Institute of Technology

One of the characteristic buildings on the IIT campus

sities and is specifically arranged for students in ECE. Zhejiang University is in Hangzhou, not far from Shanghai, in the South of China. You could be the first student from UW Engineering to go there!

6. Universidad de Los Americas, Puebla (UDLAP). This is a new program in Mexico which is specifically for Nanotechnology students. Up to now we haven't had many opportunities for NTE, so if you want to go on exchange, spend time during the coming work term learning some basic Spanish.

The above are all new programs. It takes a special breed to blaze trails for future generations; why not be one of them!

Peter H. Roe, Director of Eng'g Exchange Programs

Living off CnD Food



As a follow up to my previous article on the art of napping on campus, I thought I'd do an article on how to live off of CnD food. And by "I thought" I mean Michelle requested it. And so, without further ado, I give you my advice on how to live exclusively off of CnD food!

Actually... Don't. Just... Don't even try this one. As much as I love our dear CnD, the source of all things delicious and caffienated, there are limits to what I will do to myself, and eating exclusively at the CnD is really just a bad idea. So instead, here's some advice on how to mostly live off of CnD food.

1. Find stuff you like. Eat it. Repeat. Seriously, the ability to eat more or less the same thing on a regular basis is a good thing here. I personally very much enjoy the egg salad sandwiches and cheese bagels with herb and garlic cream cheese, supplemented with large vats of coffee. While this may seem boring, remember that

you've got a solid five years here, and having a "usual" meal means that when you inevitably get bored (or sleep-deprived) you can buy pretty much anything and it will still seem new and exciting.

2. Eat the chili. That stuff is AMAZING. It's also cheaper than Tim Horton's, even with a bagel, and it's at least twice as awesome.

3. Invest in a solid coffee mug. I prefer a stainless steel interior, but right now I'm using an acrylic mug with two lids that will keep my coffee in it's place even when my mug falls off my car. It will eventually pay for itself, and it's better for the environment. The CnD cares!

4. When you do get around to the grocery store, stock up on fruit and snack stuff in bulk. This will keep you from getting scurvy and will also help tide you over through those long nights and weekends, when the CnD is not open but you still have to be on campus working. Actually, it may just be me who does this. Either way, a tub of raisins and a bag of pretzels will go a long way towards finishing that design report.

5. The CnD opens at 7am, but if you get to campus at 7:15 during exams, they may

not actually have coffee made yet. It's worth the wait.

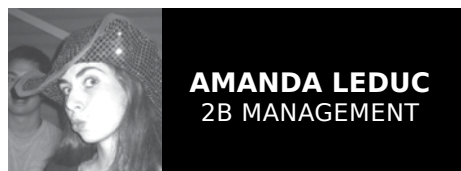
Well, that's all for now folks. Best of luck on exams, and remember: just because you CAN substitute CnD coffee for sleep, doesn't mean it's a good idea. Take a nap instead!



Michelle Croal

Late nighters be warned: the CnD closes at 7

EngSoc Underwear!



What is the best new Novelties item you can think of? ENGSOC UNDERWEAR!!!!

I've been trying to convince our lovely VP-Finance to order EngSoc underwear to be sold in Novelties but he seems reluctant ... I can't figure out why. I've also broached the topic with a few friends and I have received the weirdest looks whenever I bring up this amazing idea ... still don't know why.

Anyway, since nobody can see the genius behind this idea, I have resorted to writing an article to convince you non-EngSoc-underwear-believers.

While it's true that "Engineering Sucks", we all love EngSoc. What is the best way to show how much you love EngSoc? To keep an EngSoc logo near to your body at all times.

But where shall this logo be placed on the body? Why not keep with the usual EngSoc T-shirts and pants?

Gentlemen, consider this extremely logical argument: What is the toughest, most protective thing you can think of? Toolbearers! Toolbearers protect the Tool, the Tool is the official mascot of EngSoc, the EngSoc logo represents EngSoc, therefore, by association, the EngSoc logo is the most protective thing known to you. Now what part of your body do you value the most? The only logical conclusion to be drawn here is that you should definitely

protect yourself with EngSoc underwear!

Ladies, consider this other extremely logical argument: What is the single most powerful symbol you can think of? The EngSoc logo! In what situation do you most need to assert your status of power and dominance? The only logical conclusion to be drawn here is that you should wear EngSoc underwear so you can assert your power and dominance as a female in engineering when the time is right!

Since I have now convinced you of the need for EngSoc underwear, I urge you to go to your EngSoc Exec and demand that EngSoc underwear become the next new item available for purchase in Novelties!

MORE THAN JUST COFFEE & DONUTS

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

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




ENGINEERING SOCIETY

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

The Future of Gaming

Gaming Price Manipulation



I would normally start the article by mentioning that I own an Xbox 360 and my sister owns a Wii, so please excuse any bias. But this article is very biased, so I'll warn you in advance, and then start complaining. So here it goes.

So far in this generation Nintendo has held their price the longest - its entire life span. In the entire history of the video game industry no console has gone so long without a price cut, or even bundling an extra game. Nintendo has been able to entirely control the system of supply and demand - how else can you explain the fact that it was impossible to go into any store and be guaranteed of finding the Wii in stock?

While systems normally retail with supply far below the demand, they don't last long. When I got my Xbox 360 on release day I was one of the few who actually had their pre-orders honoured. Best Buy was the only store, out of Futureshop, Best Buy, EB Games, and Microplay, who honoured the pre-orders they sold; all of the other stores sold the systems they got even if they were already promised to another customer. In the weeks after the 360 was released the few who got systems started making a profit on Ebay, with some systems selling for over a thousand dollars.

The same thing happened with the PS3 and the Wii, the only difference with the Wii was that the lack of supply and the profiteering didn't stop for two years. Nintendo was able to take advantage of the demand for the system, control the supply and engineer the circumstances that have allowed them to sustain the price at \$279 for two years, while seeing their profits

from each system rise as production costs have fallen.

This Christmas, my high school sponsored five families who could not afford to get their own children presents; one of the gift ideas for a family with three boys was a Nintendo Wii. Unfortunately we couldn't find a Wii... so we ended up getting them an Xbox 360. That is where Nintendo's plan is backfiring, while they may have been able to sustain a higher price because people were striving to find the system, they were also losing a fair number of customers to their competitors. Both Sony and Microsoft have changed their SKUs, offering new features, bundled games or accessories, and of course; dropping their prices.

Everybody has probably noticed that Wii systems are now in stock at most retailers, so the supply part of the equation has reached the tipping point. Now is the time when the demand has dropped - so the price needs to as well. Nintendo cannot afford to continue driving the market, they just don't have the price point or the originality to keep the demand and justify the price. While the Wii started out as the least expensive of all three systems it has now lost that boast. Also with both Microsoft and Sony unveiling motion sensing systems, Nintendo has lost their ace in the market.

I am not trying to turn people against Nintendo with this article; I think they have a great system with fun games. Instead I am trying to show that Nintendo needs to realise that people won't stand this price freeze forever; eventually people will stop buying the system because they can wait for a price cut to come along, or for a game to be included. Of course, if you want to buy a Wii, do it, at the rate they are going you won't be angry in a week when the price drops - chances are it won't...
Keep on Gaming

Strange Things Found in the IW Office

- The Mystery Bottle
- A bucketful of toy blocks
- A Fridge Door
- A signed poster of Marc Tan
- Shamrock-shaped sunglasses
- Michelle Croal
- A large inflatable hammer
- Mike Seliske's shoes...
- A foam sword with built-in watergun
- The sketchiest brown couch on campus
- A large green beach umbrella
- A stopwatch that only beeps on Saturdays
- Giant bowl of potato salad
- Cupcakes and IW apple pie!
- An anthropomorphic pineapple
- Crayons
- The Genius Bowl

IW staffQuotes!

- "'Obligatory' is now mandated for all IW Staff"
- Matt Casswell
- "If I were ever gonna try a drug, it would probably be LSD"
- Yousif Al-Khder
- "WEEF will not fund a Carnot Cycle"
- Alex Giroux
- "Perfection is an asymptote"
- Stuart Pearson
- "Spelling mistakes are INACCEPTABLE"
- Michelle Croal
- "Die hard, Die harder, Die harder-er, Die harder-er-er *explosion*"
- Jon Radice
- "Thumbs down to...God - for making it rain so hard during pubcrawl"
- Joonha Shin
- "You can't give a thumbs down to God - He'll smite you!"
- Stuart Pearson
- "North Bay is so cold, even the hookers wear long johns..."
- Alex Giroux

COMMUNITY EDITORIAL

Thumbs Up/Thumbs Down



Thumbs up to the new Kinder Surprise eggs! They pop open with ease!



Thumbs up to Free Floats on July 24th outside CPH and RCH!



Thumbs up to wine!



Thumbs up to Prof Marios for playing accordion at Chem Eng Coffee House



Thumbs up Ex-Dean Rothenburgs new VP International Position



Thumbs up to Steamwhistle tour Friday!



Thumbs up cream that fights the first signs of aging because engineering is causing me to age prematurely!



Thumbs down to Prof's who lower your mark when you try to explain your work to them!



Thumbs up to the new thicker CnD cookies



Thumbs down to the coldest July on record in Waterloo!



To WEEF for giving \$85 000 to departments and student teams!



Thumbs up to FOC for an awesome leader retreat!

IW RECOMMENDS

Waterloo Town Square

Venue

Uptown Waterloo

AMRITA YASIN
3A CHEMICAL

It's the weekend and you want enjoy your Friday evening but aren't in a partying mood. Then Waterloo Town Square is the perfect place for you! The streets are dimly lit and there is light music too. You always see people taking walks with their dogs or cats or high school kids hanging around. The newly renovated mall seems to be a hot spot for skateboarding lovers; some of their feats will leave you mesmerized. If you are lucky a band might be playing there too. If you are in a really good mood, try the gelato ice-cream or coffee at 'Lotta Gelato' (120 King St.). You won't regret it! And finally if you feel hungry there is a variety of restaurants, bars and cafes to choose from! The strange iron statue in the corner completes this highly sustainable urban oasis. Yay concrete!

The Iron Chef Spinach-Strawberry Salad (SSS ain't that cool!)

AMRITA YASIN
3A CHEMICAL

Ingredients

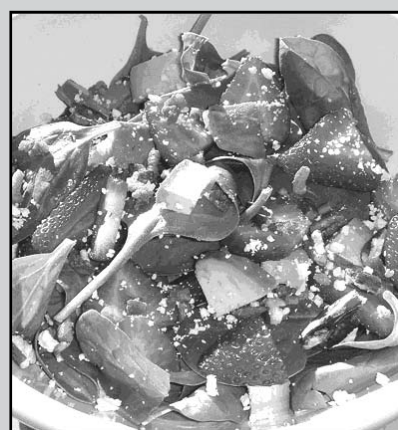
1 pound flat leaf spinach
3 kiwi fruit, peeled and sliced
1/2 pound quartered strawberries
1/4 cup slivered almonds

Salad Dressing

3 tablespoons lemon juice
1 tablespoon honey
1/4 cup olive oil
1 tablespoon poppy seeds
salt and pepper to taste

Directions

1) Place spinach, kiwi and strawberries in a large salad bowl.
2) Combine all ingredients for salad dressing in a separate bowl.
3) Toss dressing with salad. Sprinkle with almonds. (You can also arrange strawberries and kiwi slices on top).



Across

1. Actor who played Davros on Doctor Who, Michael _____
7. E-book reader developed by Amazon
13. _____ Palsy – a group of conditions causing physical disability in human development
21. 2002 animated film featuring a mammoth and a sloth
22. A headband, especially a garland of flowers (pl.)
24. What judges do when they don't allow arguments or actions
25. Vacuum tube with an electron gun and a fluorescent screen (CRT)
27. Fitted clothes to cover the leg, usually for women
28. A story, question, or statement in the history of Zen Buddhism
29. 1980's Mexican pop music group
30. Ankara, the capital of Turkey, is sometimes called this name, which is also used in the names of goats, cats, wool, and rabbits that come in the city.
32. Trademark Electronic Application System (abbr)
33. A metamorphic rock used for roofing, counter-tops, and flooring
34. Small animals that live in the northern hemisphere that are related to wolverines, minks, and weasels
36. International vehicle registration code for Laos (ie. Canada is CDN, Germany is D, Australia is AUS)
38. The highest level reached by a body of water that has been maintained for an extended period of time
43. Being lukewarm
48. Land area in acres
49. 1
50. Forces being applied to a structure
51. 17th letter in the Greek alphabet
52. A small, brown-and-white bird
53. Mexican beer
56. American television station and broadcasting company
57. Early 1990's pick-up truck made by Volkswagen, which was only a rebadged Toyota Hilux
58. Train company that provides direct service from New York City to Atlantic City.
59. Re-evaluation of something, esp. something related to monetary worth (pl.)
62. Another name for a buffalo
63. Not a Number
64. A shortage of food (pl)
65. Generic term for an old song, typically from a period 15 to 55 years from the present day (singular)
66. Actor Christopher _____, probably best known for his role in the 1978 film Superman

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- Erie Shores Wind Farm
- Biogas Energy Harnessing
- Power Supply Design

Submissions receive 75 P5 points.**

Here We Go Again!

MATT CASSWELL
2B CIVIL

67. Lyrics in Kanye West's "Stronger": You should be honoured by my lateness / That I would even show up to this fake s*** / So go ahead, go nuts, go _____ (2 wds)
69. What wakes you up in the morning
70. Where the milk comes out of the cow
71. Current federal governing party in Canada (2 wds)
78. Relating to the pope
81. Opposite of tight
82. Luxury car made by Volkswagen
86. 1990's film Home _____
87. A braid of hair or straw
88. Polite and well-mannered
92. Long period of time
93. Boogers (pl.)
94. Many people have claimed that George Bush and Stephen Harper have had one of these
96. SI unit for weight
97. Systemic Inflammatory Response Syndrome (abbr)
98. Abbr. for a baseball statistic calculated as the sum of a player's on-base percentage and slugging percentage
99. Dislike for personal past acts
100. Thin ridge of rock formed when two glaciers erode parallel U-shaped valleys.
101. Frozen water
102. Contraction for "will not"
104. To strive for victory
105. A generally unused form for being "more polite"
107. A sin that condemns one's soul to Hell in Catholicism
110. The act of hesitating or state of being hesitant
113. The name of the Black Eyed Peas' newest album, The _____
114. A superhero created by DC Comics, best known as a member of the Teen Titans
116. One of the most common screensavers for Windows computers, before Vista
117. Where the Tiny Toon Adventures was set - the city of _____ Acres
120. A brawl
122. A copier or follower (slang)
123. One of the top sound systems in the world.
127. The loose back part of a coat that hangs below the waist
129. A gambling game in which the dealer shows a player three cards, then turns them face down and moves them around, and the player must guess the position of a particular card.
133. Capable of fertilizing female organs
134. A chief of leader
135. C4H4N2O2
136. Doing something with attention and sharp focus
137. A sandbar (pl)
138. Chemical compounds derived from an oxoacid and a hydroxyl compound (pl.)

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133																								
134																								

Down

1. The string in a candle that is lit
2. International Civil Aviation Organisation (abbr)
3. Bristles or hair-like structures on living organisms
4. The father of Nuclear Chemistry, Otto _____
5. The "I" or self in any person
6. Symbol for warning
7. Martial art
8. Someone that lacks sense or substance
9. A negative reply or vote (pl.)
10. Controversial pesticide
11. Currency of Romania
12. To go aboard a vessel or aircraft, ie. at the start of a journey
13. British cartoon character originating in

- the 1930's.
14. _____ Quest - fantasy-themed online RPG
15. Royal rights or prerogatives
16. Unit of energy and mechanical work equal to 10⁻⁷ Joules
17. Generic term for people from Great Britain
18. Any character from an ancient Germanic alphabet used in Scandinavia until the Middle Ages
19. Australian Local Government Association (abbr)
20. Opposite of more
23. Past tense of send
26. To make proud or joyful
31. To receive or come into possession of something
33. To use influence to have power over someone or something
34. A large house (pl.)
35. The ACC, the Montreal Forum, Madison Square Gardens
37. The first "real" math you learn is school is how to do this
38. Capital of Cuba
39. Popular summer drink from Tim Horton's
40. NFL Quarterback David _____, who played for the Seattle Seahawks from 2005 - 2007
41. Not his.
42. To change shape or form
44. A close-knit group of people
45. What your prof did before you could finish copying down notes - he _____ the board
46. Another name for Pancake Tuesday
47. Most people prefer it then, rather than later
53. Automobile
54. Occupied Palestinian Territory (abbr.)
55. A sauce made of garlic, olive oil, and egg, typically served with seafood
56. Committed people within an organisation that form the backbone of that organisation
57. Popular way of making 'psychedelic' shirts
59. A harness, usually on a horse
60. Slang for food
61. The largest ethnic group in Europe
62. Bad or terrible
64. Another name for an India Wild Dog
68. Barely sufficient
69. Past tense of 'eat'
72. Relating to or having the shape of an ellipse
73. What cars drive on (pl.)
74. Invalid
75. The name of a very common purple flower. Its name isn't common, however
76. Portuguese Distribution Association (Portuguese abbr.)
77. Titaness daughter of Uranus and Gaia in Greek Mythology
78. Latin for "here and there and everywhere"
79. Acronym for alloys composed of aluminium, nickel, and cobalt
80. Having less wealth and possessions than another
83. Cylindrical and slightly tapered at both ends
84. When someone speaks in a very formal manner (pl.)
85. Type of website that is becoming increasingly popular to find a baby name on (pl.)
87. Unit of apparent loudness
88. Pledging as security
89. A type of white heron
90. French for "born;" usually indicates someone's maiden name
91. Explosives
95. Not always, and less than sometimes
96. Smile
100. Type of beer (pl.)
102. Wide Area Network (abbr.)
103. Slang term for an old person
105. Peter _____ picked a peck of pickled peppers...
106. Late
108. What babies do when their teeth start to come in
109. New York City abbr.
110. Foolish nonsense (pl.)
111. Relating to an apex
112. 2000 film with Denzel Washington - Remember the _____
115. Historic city in South-West England
117. A small, grape-looking fruit from South America
118. Short form for Connecticut
119. Actor _____ Damon, who appeared in Saving Private Ryan, the Ocean's Series, and the Bourne Series.
121. Currency of Iran
122. Raised platform
123. What T-Pain is on. Still.
124. Singular occurrence
125. To mix or agitate
126. An electric underwater species (pl.)
128. X
130. Royal Albert Hall (abbr.),
131. Tokyo's original name
132. A married woman usually uses this title before her name

profQuotes

"Entropy says that if you create dinosaurs, you will get eaten"

- M. Collins ME 250

"I was going to call it an 'Energy Diagram', but I didn't like the initials"

- J. Medley ME 212

"How's everyone feeling today? Happy? Well-rested? Yes? Ok let's do course critiques!"

- B. Epling, CHE 330

"Your goal in life as an engineer is to take something cheap and make something expensive"

- B. Epling, CHE 330

"If you don't stop talking I have an injection for you!"

- R. Pal, CHE310

"Who are we to question L'Hopital's ghost?"

- M. Ioannidis, CHE 322

"Mathies have no friends"

- L. Smith Econ 102

"I figure this is as good a time as any to make fun of my cousin."

- B. Conant, EARTH 458

"The university is saving money by getting inferior chalk"

- K. Daun, ECE 309

"Everyone get their goggles ready, I'm going to draw this in 3D"

- K. Daun, ECE 309

Procrastination at its Best

LEAH SICZKAR
1B ENVIRONMENTAL



Leah Siczkar

Nodal Analysis.

The Iron Sudoku: Alpha-Numeric Style

MATT CASSWELL
2B CIVIL

				5	7					6			D
D	1			B		4		6	5		C		2
2			9	8	E			3	B	1		F	
6		4			A	1		8	7				3
		3	6				F	G				7	D
	D			7			5						
			1	G	C		4	F					3
					8					2	B	C	4
3	C								G		5	4	
		1				6			F		B	7	A
			7			A	B		1	8	2	3	E
	6	2		3			D	E	4	A		9	1
	5			2			3				G	A	4
C		6		E	F			5		3			
	A			4				9			1		C
		F	D	6	9	B		A					G

Use the numbers 1-9 and letters A-G in every row, column, and 4x4 square

THE IRON INQUISITION

"What would you do to prevent global cooling?"

Amrita Yasin, 3A Chemical



Jack Wu
3N Electrical
"Let global warming do the work"

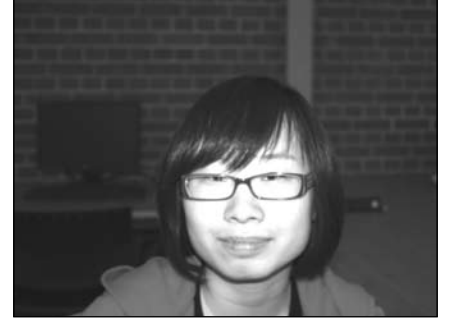


Shaharyar Khan
4A Mechanical
"Have some more wars"



Neha Sinha
4A Electrical
"Become hotter"

Chen Zhu
1B Mechatronics
"Take away all the activists who are going against global warming"



Tabish Wajid
2B Mechanical
"Stop using my refrigerator"

