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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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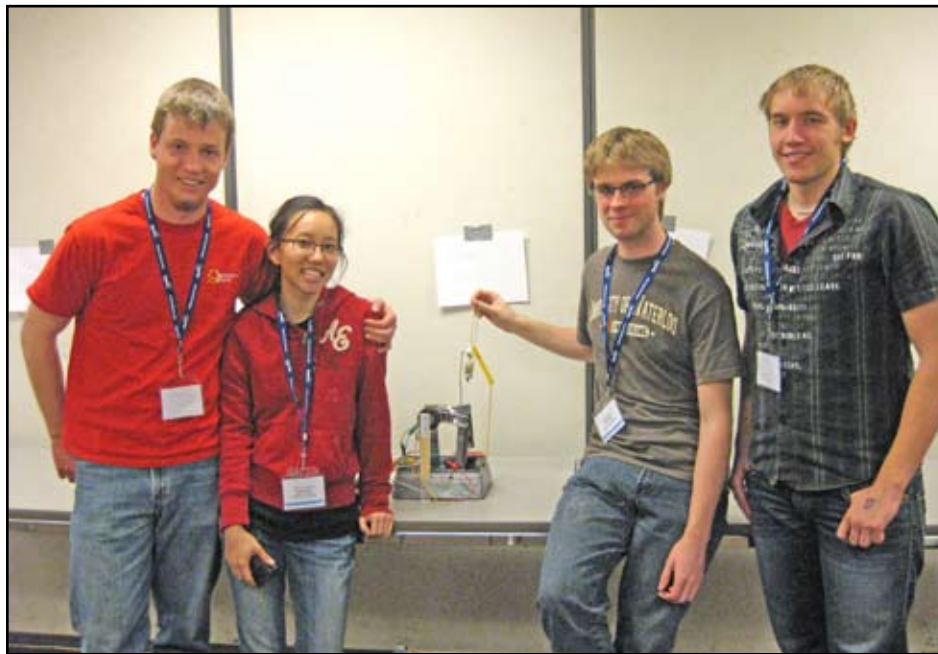
UW Brings Home Social Awareness Award

TREVOR JENKINS
2N MANAGEMENT

Waterloo engineers did us proud this past weekend at the Canadian Engineering Competition (CEC). Running from March 18 to March 21, CEC was hosted by the University of Toronto, with their St. George Campus and the Eaton Centre Marriott hotel playing host to this national event. The theme of this year's competition was The World, Engineered. With competitors qualifying in four of the six competition categories, Waterloo was tied for the most represented school along with the University of British Columbia.

CEC is an annual competition that brings together qualifying teams in one of six categories: Consulting, Communications, Debate, Innovative Design, Team Design, and Senior Design. In order to make it to CEC, most students undergo a qualifying competition at their school. Here at UW, competitors had to first win at the newly-established Waterloo Engineering Competition (WEC), held jointly by Engineering Society and The Sir Sandford Fleming Foundation. At UW, WEC is held twice a year, during the spring and fall terms, in order to allow both streams of students an opportunity to represent their society. Following that, teams had to place top-two in their category at their regional competitions; Ontario, Quebec, Atlantic Canada, and finally Western Canada.

Waterloo was fortunate to host the Ontario Engineering Competition this past January. Teams from UW placed top-three in every category, the only school to do so, and UW teams qualified for CEC in 4 out of the 6 categories: Consulting, Communi-



UW Senior Design Team displays their final project at the CEC

cations, Extemporaneous Debate, and Senior Team Design.

Waterloo started competing at CEC early on Friday morning in the Debate competition with Keith Peiris and Uzair Chutani taking on a strong team from the University of Alberta. Their resolution: *Patent law does more harm than good*. Undertaking the role of government, and defending the resolution, Keith and Uzair fought hard with their counterparts, bringing up strong points about development time cycles and the "need to reinvent the wheel" every time a small company wants to expand on something that already exists but may already be patented. By the time the intense half hour of debate finally settled, UAlberta narrowly scraped past UW to win

the match. However, since it's not a single elimination event, the UW team was still alive and kicking and had more matches to go over the day.

Next up was Rana Tehrani Yekta of UW who was in the Engineering Communications category. The category challenges competitors to present a clear explanation of a technical product or process in such a way that the general public can understand, or simply put, being able to make your grandparents understand your work term report. Rana gave a presentation entitled *Performance Comparison of Hot Mixed Asphalt Versus Warm Mixed Asphalt and Their Effects on the Environment*, that examined the different production methods of the two asphalt mixtures, and the impact

that each has on the environment. She received a strong reception from the panel of industry judges and appeared confident with her work once she finished.

While both the debates and communications presentations were underway, the Senior Team Design was busy with their 8 hour design period. The Senior Team, composed of Maple Leung, Cody Prodaniuk, Nevin McCallum, and Jeff McClure were faced with one of the more difficult tasks of recent years. They had to create a machine that had to be able to open screw top jars and margarine containers, and then identify whether it contained a liquid, solid or nothing. This was supposed to simulate a biohazard situation wherein dangerous materials had to be identified autonomously. When it finally came time to present their mechanism, the team gave a strong presentation that highlighted the advantages of their system. Their final testing did not go as exactly as planned, but they still were confident with their work.

Finally, while creating a fresh water retrieval and filter system to deliver to Port-au-Prince in earthquake ravaged Haiti may seem intimidating to some, the Consulting Engineering team took the challenge head on. The team, composed of Ian Davies, Adriana Cameron, Will Zochodne, and Tim Bandura, worked diligently throughout their 6 hour design period and created a strong report and presentation that centered on pumping water from a nearby fresh water river, piping it to the city and then creating a series of smaller outlet stations from which residents could retrieve water.

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Engineering Tuition Fees Across Canada

MIKE SELISKE
2A COMPUTER

For years, students have been characterized as poor and starving, and one of the major contributing factors is the high cost of tuition required to study in a post secondary institution. Engineering has typically been one of the more expensive programs to study, but have you ever wondered which school is the most expensive?

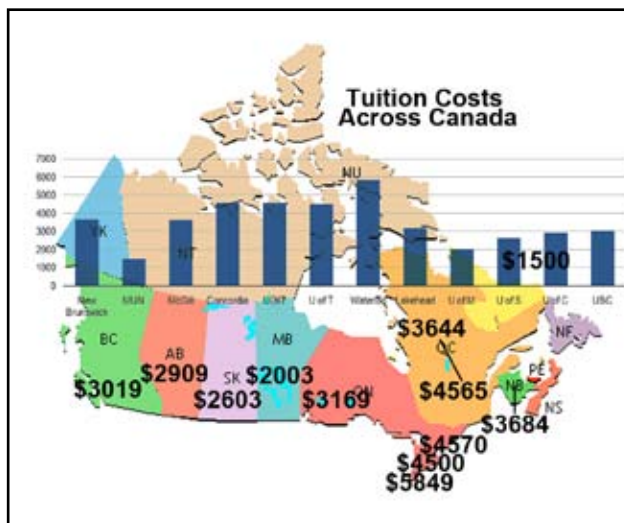
Conversations with members of other engineering schools has always led to the same conclusion: tuition at the University of Waterloo is more than at any other school with differences sometimes being substantial and at other times not so shocking.

Here is a review of some numbers from some engineering schools and the cheapest and the most expensive options for an engineering education. Not all Canadian universities are included and the numbers included are collected from the Registrar's website of each of the universities so costs might not be 100% accurate.

Starting in the East, the cheapest tuition in the country is at the Memorial University of Newfoundland which receives heavy

subsidies from the government for all of its programs. At a TOTAL cost to the student of only \$1500 per term, (including all non-tuition fees) it is by far the cheapest program in Canada. Making this school even more appealing is the fact that it offers a full co-op program which is very similar to Waterloo's, meaning most of the money students make on work terms can be spent or saved for the future and won't be going directly back to the university like it does for Waterloo students. Sticking with Atlantic schools we move to the University of New Brunswick which seems to charge the same price

for all faculties, but has a \$500 yearly engineering program fee. The total cost per term is \$3618 which turns out to be about standard for engineering programs across Canada.



Visual representation of tuition fees across Canada

dian residents and international students. Both Concordia and McGill have similar fees averaging about \$1900 for Quebec

residents and \$4500 for other Canadians. Over a 4 year degree, Quebec residents save around \$12,800 compared to students attending from other parts of the country.

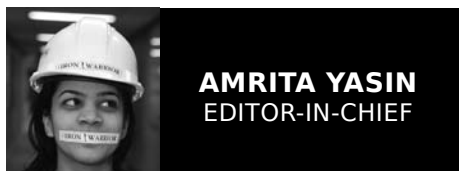
Moving on to Ontario, I have chosen schools in various situations such as UOIT, which is a new school and U of T which is of similar size to Waterloo. The actual tuition costs of the Ontario schools are very similar but the fees added to tuition vary greatly. Since UOIT is a fairly new school, the cost for buildings and infrastructure is passed onto students (similar to the fees charged in the past for SLC and TC construction in UW) in the form of around \$1600 in fees on top of their fairly average \$3000 per term tuition. U of T charges \$4500 in tuition which is pretty close to what UW students pay. Heading north to Lakehead, the tuition looks more like the rest of Canada charging \$3170 per term including all fees however it's free if students maintain a 95% or higher average.

Moving through Ontario and into Manitoba, we arrive at the second cheapest tuition among the schools considered in this review.

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Letter from the Editor

What Journalism Means for a Student Publication



AMRITA YASIN
EDITOR-IN-CHIEF

As I review this term, I realize that my life had been divided into biweekly periods. I spend one weekend putting *Iron Warrior* together and the next weekend catching up on sleep and the pattern repeated itself over the term. Yes, we took a three week break but that was during reading week which I spent sleeping anyways so that doesn't count. Anyways, as I finish off my term I realize I have extremely enjoyed my experience with IW albeit multiple sleepless nights in a week, no school work at all for four days in a row, an unconscious proofreading process that goes on even when I am doing leisure readings or school work and grades that decrease exponentially. I will graduate from Waterloo with a degree in Chemical Engineering and 20 months worth of experience *fingers crossed* and the only thing that I have given back to this school are these five issues.

As my term comes to an end I would like to reflect on what I have learned and how my ideas about a student publication have changed. I came into this position very intimidated because *Iron Warrior* is not only a well respected publication on campus, it is also read and praised across other Canadian engineering schools and I felt it was my responsibility to keep the bar high. As I read older newspapers I also noticed the difference in content and writing style between the two societies. From my experience, and I repeat this, it is strictly my own opinion, there are two schools of thought: one says that we should try to print everything that the students submit as much as is permitted by the space while the other says although it is a student publication we still need to maintain certain standards and be careful enough not to lead IW on to becoming a written blog. I should also mention that these two thoughts are not entirely mutually exclusive. Other things such as an emphasis on having enough entertainment elements, having distinct sections of genres etc have varied on a termly basis and I personally have no stone clad opinions about it; you have to do what you have to do to cater to the needs of the student body. Through my term I have become a strong proponent of the idea that the submissions need to be evaluated and only those which do justice to the genre they are writing about should be published. We have seen PDEng flair up among students and fuel was added to the fire last year after the Independent Review was conducted followed by the formation of the Task Force. Although PDEng is a topic very close to every student's heart and everyone has slightly different views

on it which they have a right to express, I think criticism for the heck of criticism should not be published. Articles or ideas which openly discuss superficial flaws without providing any insight don't provide any substantial material to work with. We need to address students concerns but also ensure that IW does not become a tool to create rifts between students and any other entity within the university.

Iron Warrior also has a satire and humour insert *Tin Soldier* with issue 5 where we like to laugh at ourselves as well as on any form of bad journalism. My only concern with satire and humour is that while mocking we should not stoop down to the level that we are mocking or it defeats the entire purpose; TS should not be an instrument for us to write what we cannot write in regular IW under cover of being a good and respectable newspaper.

My experience as an EIC has also exposed me to the other facets of running a newspaper - the darker side as I would say. Before starting this job I thought it is a purely creative job where I am supposed to come up with ways to make this paper interesting and appealing, and ensure that the content is not offensive. But some experiences made me realize that freedom of expression and freedom of journalism don't exist in the form as we like to think they do. Some of you may know that IW is entirely run on advertising revenue. For the last few terms we have had problems getting enough advertisement which has affected the printing quality (number of times we are able to publish coloured issues) and distribution. There was a proposition that a portion of each student's EngSoc should be allocated to IW so the editors don't have to fret about finances. I was all up for it until I read an article by Tyler Gale in an IW issue from Fall 2007 and some of my own experiences which changed my views. Judith Lichtenberg, a professor of Philosophy at Georgetown University said "no money, no voice" about freedom of press. Ideally, a newspaper should exercise freedom of expression and be able to operate as it deems appropriate. Of course there should be a regulating body that ensures that the editorial board and staff members are doing their job properly, as we are currently overseen by an Advisory Board, but other than that there should be no constraints on the content or other administration dictated by monetary or superiority incentives. But the reality is it doesn't work like it. If IW officially gets funded by any specific body such as EngSoc it will feel obligated to follow that body's directions which also might feel that it needs to keep tight reigns on the newspaper because it is paying for IW out of its own budget. In such a scenario, it will be harder for IW to maintain its professional integrity as a separate entity. This is not a desired situation for a regular newspaper which needs to be

critical of happenings in and around campus and maintain a somewhat unbiased ground. I am not saying that the individuals heading EngSoc will be too controlling or IW editors be indecisive but this kind of mentality among both the groups is bound to develop over time in such a system.

And now on to my regular rant about the paper. Well before the rant thanks a lot WEEF for funding a new computer for IW! We don't have that old machine anymore which takes 15 minutes to boot and generates a message every 16 seconds giving me a quota warning! Now back to the paper: this was a very exciting issue because it's coloured if you haven't already noticed and it's Issue 5 which means there is a *Tin Soldier* insert. In the main issue you will find some of the regular columns, Gaming, Fashion Files, Review Based on the Trailer, Iron Archives, mandatory crossword and Sudoku without which you will probably kill me, and Iron Inquisition which I whispered to random students since I literally lost my voice to sore throat this weekend. You also get to meet your new A-Soc Executive; Congratulations to all of you and remember, the key to success is sending in your executive reports on time! On a serious note, we have PDEng Task Force update, an opinion piece on engineering student body and society, articles on the Throne speech, Canada's position at the technological front, and Albert Einstein two articles from EWB on water infrastructure and cell phones in Africa. We also have some articles on the million events that have happened in the last two weeks. And since this is my last editorial I would like to make an announcement. Drumroll everyone *damram-damram*! Our EIC for Fall 2010 and our first very first Nanotechnology EIC is Roy Lee! Roy has done an amazing job with layout and photo editing this term and is very enthusiastic about his position. I am sure he will be a great EIC and keep you people informed and entertained.

Before I end, I would once again like to thank my staff for all their efforts, especially Jon R. who displayed the perfect example of being an honest journalist and literally 'ate' his words from Issue 2 when he said that Canada wouldn't win Gold in the Winter Olympics.

Smile all along C:
Amrita Yasin



Staff Appreciation Corner

As I sit here writing one of my mandatory articles as the EIC a million names come to my mind without whom things would not have gone smoothly. A newspaper is the product of collective efforts on part of many individuals and no one alone deserves the credit for the newspaper that makes its way through the engineering hallways every other Wednesday.

First of all, a huge thank you goes to all the staff members for taking the initiative to write on very interesting, meaningful and different ideas and delivering beautifully on the ideas they were *voluntold* to write on. An editor can only bring in so many ideas; if it were not for the staff writers IW would not have seen the variety in subject matter found this term.

Thank you to Trevor for making my transition to this position so easy and being patient with me as I bombarded him with emails at the end of last term.

Thank you to my IW encyclopaedia, Michelle, for always being there to answer my

What? How? Why? Really? questions. And for volunteering to spend her lovely Friday afternoons putting together the crossword for me.

A super duper thanks to Mother Nature for providing me with an awesome successor, Roy, who as an assistant editor was in the office on production weekends for as long as I needed him and did an amazing job with layout and photo editing.

Thank you to Mikayla for copy editing and brightening my Friday evenings; I would have gone insane sitting by myself for eight to ten hours straight.

I would also like to thank the advertising manager, Amanda, for doing an excellent job finding ads this term. From phone calls to meetings, from retail services to restaurants she left no stone unturned looking for advertisements.

And a thank you to everyone who visited me over production weekends and on random

days, asking me how IW was going, encouraging and cheering me and giving me feedback. It all means a lot to me.

Thank you to the plant operations people who kept our cozy IW office clean.

If there is one person who deserves a thank you from every engineering student, it's Mary Bland. The awesome Mary who works in the Orifice, always welcomes everyone with a smile, has answers to every imaginable question, and will do anything she is asked to do. Mary, thank you very much for taking care of our administration and finance, you are awesome!

And on a very personal note, thank you to my two musketeer friends who listened to my IW rant for hours without even a frown, helped me with assignments an hour before they were due and never said anything when I was late on finishing my part of group work. Without you two I would not have been able to survive the term!

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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

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

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

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PDEng Renewal Task Force Update

SASHA AVRELINE
PDENG TASK FORCE

It's time for one more update on the recent progress of the PDEng Renewal Task Force. Over the past few weeks the Task Force has been busy with a number of things. First of all we have been reviewing your feedback on the first set of recommendations and finalizing them based on the feedback received, as well as taking first steps towards implementation of some of the short-term fixes. I'm happy to report that the Task Force is moving right ahead with all four of the short term recommendations:

1. A new marking scheme, based on

numerical grades and averaging has been developed and has been approved by the Chairs and Associate Deans (CAD) committee. The goal is that the new marking scheme will be a big help to the students as it will no longer include the "weakest component" marking strategy. The new marking scheme will be in place for the Summer 2010 term. All further details about the marking scheme will be available soon at the Task Force website: <http://www.engineering.uwaterloo.ca/pdengrenewal>.

2. A focus group has been created in order to see what improvements can be made to the UW-ACE interface. The group consists of myself, David Lui, PDEng Staff and sometimes UW-ACE IT staff. We will

be looking into (a) how to simplify navigation around existing PDEng courses and (b) how to ensure that transition to the new version of ACE (to be released in May) will be as smooth as possible. Once the new interface is finalized it will be tested by about 25 students.

3. An independent course critique has been designed for the PDEng courses and has been approved by the Academic Policy Committee (APC). The Task Force is currently in the stage of resolving some of the implementation issues.

4. Bringing the material to the PDEng workshops has already been only a recommendation versus a requirement for a number of terms.

The Task Force has also been looking into issues of workload, types of deliverables, delivery interface and will be releasing the next set of recommendations in early April. In doing so, the Task Force has been seeking input and building upon the experience from a number of groups and individuals including Chairs, Program Directors, Associate Dean of Undergraduate Studies, WatPD Director and Professors and the Center for Extended Learning (i.e. Distance Education).

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

Dean Comes to the EngSoc Meeting to Talk about Funding Concerns Regarding PDEng

At the last EngSoc meeting, Dean Sedra took the time to address some of the concerns related to funding of the PDEng program that have been raised by students. At the meeting Dean Sedra made it clear that most of the Ontario Government funding received for the PDEng program is spent on the PDEng program and is not banked within the faculty. The

University reports how many students are taking how many courses on the work-term and passes that information to the Government. In return the government delivers the necessary funding as it would usually do for so many students enrolled in so many courses. Right now it costs roughly \$2 million a year to run the program at no cost to the students.

For this reason Dean Sedra stated that it would be impractical to move the whole program from the work terms into the academic terms; however, a small percentage of the program could be covered on the academic terms if necessary. Finally Dean Sedra stressed that during the renewal process he is willing to introduce additional funding on top of the current

budget in order to make the transition from the old to the new PDEng as smooth and as fast as possible. Dean Sedra's other goals include ensuring a better connection between the Faculty and PDEng Task Force, including direct involvement of faculty in the renewed PDEng courses. Big thanks to the Dean for coming out to the meeting!

Nanotechnology Student Among Top Co-ops in UW

PRESS RELEASE
IW NEWS BUREAU

A nanomedicine intern at Harvard Medical School, Tewodros Mamo, 4B Nanotechnology Engineering, is among the top recipients of Waterloo's 2009 Student of the Year Award.

To mark National Co-operative Education week, March 22 to 26, Canada's co-op pioneer will be celebrating the academic and experiential achievements of its six top co-op students, including Tewodros Mamo, the recipient of the award for the Faculty of Engineering.

Harvard Medical School hired Tewodros Mamo, their first co-op student, for a two-term position as a nanomedicine intern in January 2009. With both a science and engineering background, Mamo was involved in designing targeted nanoparticle systems for gene and drug delivery. He and his team produced results consistent with the current consensus of top

biotechnology companies by proving that nanoparticles show great promise in the therapeutic treatment of cancer and other diseases. He authored a review article that organized the latest perspectives in the field of nanomedicine that was published in the February 2010 issue of the journal *Nanomedicine*. The research works he participated in are in the process of being published in upcoming articles and patents. As a result of Mamo's successful work terms, Harvard is hiring eight more co-op students.

One student from each of the Faculties of Applied Health Sciences, Arts, Environment, Mathematics, and Science will also be honoured at the ceremony on March 24 at 10 a.m. in the Tatham Centre, Room 2218.

This year's recipients at Waterloo were chosen based on their 2009 work term contributions, academic achievements, community involvement and overall contribution to co-operative education.

UW at CEC

Continued from Page 1

Every station would contain biosand filters which could be used to sanitize the water for human consumption at an extremely low cost. A strong part of their idea included refurbishing a hydroelectric dam on the same river that has been neglected for years and is extremely underutilized, that would ultimately provide power for both the pumping station and the country as a whole.

After 48 hours of intense competition, most competitors were ready to unwind and relax by the time the Awards Banquet finally rolled around on Saturday night. The banquet was held at the ritzy Liberty Grand, at Exhibition Place. It offered an opportunity for competitors to meet one another, members of the organizing committee, and industry representatives.

After all the awards had been given out, Waterloo was fortunate enough to not go home empty handed. While none of the teams finished in the top three places of their respective categories, the Consulting Engineering team did receive the special "Social Awareness Award" for their water and energy delivery plan for Haiti. The award hon-

ours a team that considers humanity and its needs at the root of the solution. The award is considered for all competitors in the competition so it's a great reflection on the team for winning this honourable award.

The competition ran extremely smoothly and went off without a hitch. With a pan-asian buffet dinner overlooking Dundas Square, a hotel that featured a rooftop pool overlooking the city's core, and free wine at almost every social event, this competition has set a new standard in top-notch classiness for an engineering competition. Congrats to all UW competitors - you made us proud!

Thank You from Jeffrey Aho's Family

BRIAN AHO
JEFFREY AHO'S FATHER

The family of the late Jeffrey Aho wishes to express their sincere appreciation for the sympathy and support from our many relatives, friends and colleagues. Thank you to all who sent cards, floral tributes, online condolences, meals, baking, visits and phone calls. To those who sent donations to the Canadian Mental Health Association and the University of Waterloo Engineering Endowment Foundation, and other charities were deeply appreciated. Special thanks to the Sigma Chi Theta Psi Fraternity and Levi McCulloch for arranging the White Rose Ceremony in Waterloo with the assistance of the University of Waterloo, faculty, and friends. Speakers Ryan Garipey, Mike Purvis, Brandon DeHart, Chris Neal, Rajan Shah, and Professor Jan Huissoon for their remembrances. Special thanks to Lloyd Chaykowski for leading the Celebration of Life in Thunder Bay, the Thunder Bay Youth Symphony Orchestra and Jane Saunders for providing the music prelude, and Joseph Petch for the trumpet solo. Speakers Lyle Morrison, John Kennedy, Stephen Maley for their kind words, and Mark Aho his brother for delivering the eulogy. Also Rev. Dan Repo for the interment and support, and the staff at Erb & Good Funeral Home in Waterloo and Harbourview Funeral Home in Thunder Bay for their compassion and guidance.

Brian & Linda Aho and family

Sandford Fleming Foundation



Professionalism.
Leadership.
Communication.

There's more to an engineering education than engineering.



Introducing the New SFF Memorial Leadership Award

In recognition of the late Professors Saip Alpay and Wm. C. Nichol, and Sam Ceccerallo, Robert Elligsen, later former students of the Faculty of Engineering

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

Nominations for the SFF Memorial Leadership Award can originate from student groups, faculty members, or other individuals. A Letter of Nomination and Letters of Support from colleagues, faculty, and others familiar with the nominee's accomplishments are extremely important and form the major basis upon which the Executive Committee of the Sandford Fleming Foundation will form its decision. The nomination may be submitted at any time, whether the student is on campus or on co-op term, but should be submitted before the last day of the student's 3A term.

The SFF Memorial Leadership Award consists of a Certificate plus a citation, and an honorarium of \$1,000.

Nominations Must be Submitted to the SFF Office Manager by April 1

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

Is Prevention Better Than Cure?

ROB SPARROW
3A SYSTEMS DESIGN

An idea that is coming up again and again in my work is the conviction that "Prevention is better than cure." I'm looking at the issue of rural water infrastructure functionality, and in this case prevention means performing preventative maintenance on infrastructure – basically, swapping out spare parts for hand pumps before they break down. This supposedly leads to fewer major breakdowns that would otherwise require a "cure", or major rehabilitation of the pump. However, I've recently been questioning this wisdom – is this assumption accurate when applied to water infrastructure, and more importantly is it a prescription that can realistically be followed?

Most of the rural population in Malawi, and in much of the developing world, currently relies on hand pumps for access to safe drinking water. A hand pump is basically a piece of equipment which is installed on a shallow well or borehole, which a community can use to manually draw water from aquifers deep in the ground. A hand pump represents a sizable investment for a government or NGO, and they understandably want to protect that investment. This has led to the mantra "Prevention is better than cure," being applied to maintenance of hand pumps – in documents, policies, and repeatedly in conversations that I have with people working on water access. Two key assumptions are made when making this

prescription: that preventative maintenance does in fact lead to fewer breakdowns, and that communities are capable of carrying out preventative maintenance.

The first assumption is unsupported (to the best of my knowledge) by any actual data, and is incredibly difficult to prove. A hand pump can last for decades without suffering a major failure, which makes carrying out controlled tests difficult! The second assumption, that communities should be able to perform preventative maintenance on their own, is something that I'm beginning to seriously doubt.

The attitude amongst members of most of the villages I visit is that "If it's not broken, don't fix it." As long as a hand pump is working, there's no need to spend hours taking it apart. If the pump is functioning, investing hard earned money in replacing parts that may eventually break down just doesn't make sense, especially when that money could otherwise be used for school fees, food or investment. If this seems like a harsh assessment criticizing Malawians for failing to understand the need to plan ahead, it's not. After all, planning ahead to maintain our own investments is something most of us fail to do.

For example, many Canadian university students use a vehicle to get to and from school, to travel home on weekends, or to do

errands. How many of those students perform regular oil changes, replace fast wearing spare parts in the engine, and take precautions against the vehicle breaking down over time? If it's eating into their available funds – which could be used for leisure, school fees, or living expenses – the answer is likely to be very few. Now imagine sharing that vehicle between two-hundred and fifty other people (the number of people a hand pump is supposed to serve) and imagine the additional complexities that are introduced!

A more applicable example is large public works in the North, managed by a small group in order to serve large number of people. The road system in my hometown, as anyone living there can likely tell you, is in dire need of repair.

Every year it is repaired piecemeal using the same process that has led to the rapid breakdown of the road in the past. This comes as a result of an incredible number of pressures acting in the area – political, financial, social, etc. All of these same factors affect people struggling to manage a hand pump in a rural Malawian village.

If we as fairly well-to-do, and supposedly educated Northerners are unable to perform preventative maintenance for our own investments, why is it a prescription that we are willing to make for people in the global South? I suspect that a lot of it has to do

with the "Us and Them" mentality of development. Us, as wealthy Northerners can afford to ignore the issue of prevention. In our fast paced and demanding lives how can we be expected to organize our community to effectively manage our own roads and water supply? If a small group of people can manage it for us, even inefficiently, that is a luxury we can afford. For Them, we believe the situation is different. The poor should be forced, by virtue of their circumstances, to manage their resources effectively. They should be able to develop the necessarily complex structures required to manage infrastructure cooperatively, because of their (incorrectly perceived) lifestyle that is already built on cooperation and working together.

The decision to prescribe preventative maintenance of infrastructure for people in the South needs to be seriously reconsidered. The issues arising from failure to perform preventative maintenance – lag times in repairing hand pumps, abandonment of pumps, and cannibalism of infrastructure for spare parts – are far too easy to ignore in a policy environment that views them as merely the failure of communities to follow basic instructions. More importantly, the attitudes and beliefs that have led to this being thought of as a viable means of management need to be addressed if a shift in the dual-standard of our relationship with the developing world is to shift.

Cheers,
Rob

Canada Lags Behind In Digital Technologies



ANGELO ALAIMO
2T ELECTRICAL

In the early years of the new millennium, Canadians enjoyed easy access to high speed internet. While most Americans still heard the ubiquitous screech of a 56k modem, many Canadians just needed to click on their web browser to automatically open an internet session which telecom giants at the time touted as 'always on'.

It's now 2010, and with increasing bandwidth demands from more connected users and increased streaming multimedia, Canadians are being left in the dark, with what Harvard University's Berkman Center for Internet & Society calls some of "the slowest and most expensive internet in the world."

In a recent interview with CBC news, University of Waterloo President David Johnston states, "Without being unduly critical of this government, there has not been

a lot of attention paid to broadband, to the digital economy and digital media in the last five or six years."

Perhaps the problem lies with internet service providers and refraining from upgrading existing infrastructure to better support the increasing demand, or with our own government not having a clear direction on broadband, but overall, the country's productivity may be at risk.

In the CBC interview, Johnston likened the adoption of digital technologies to the printing press. Western European society adopted the printing press several hundred years ago and saw massive prosperity and growth, whereas other societies, such as those in Central and East Asia did not see the same amount of prosperity in the same time period.

Thus, if Canada does not adopt increased digital technologies quicker, we may be compromising our way of life and how the country does business with the rest of the world. Canada needs to innovate faster and keep up with the growing pace of the indus-

try of the world.

On digital media, the interview with Johnston mentions an interesting excerpt from another article. The article discussed Google's CFO speech at a recent Toronto conference about how Canadian businesses have been slow to adopt marketing on the internet.

The University of Waterloo has recently begun using social networking to promote the University using such websites such as Twitter, Facebook, and YouTube. In fact, if anyone caught a glimpse of the first mock-up of the *uwaterloo.ca* redesign, you would have seen buttons linking to these social networking websites. However, if anyone has seen some of the YouTube videos the university has released, you may be wondering whether some of these videos were produced 15 years ago with their tacky music and design cues seemingly from the mid 90's.

The University should have realized by now that prospective students could view these videos, and likely they should be very

high quality and extremely professional. It's important to show these potential candidates that the University is in the 21st century and to make sure we keep the CBC calling us "the country's most influential technology school."

Yes, Canada does need to improve its digital technology and media strategy to increase the country's presence and to ensure the country can keep up with the rest of the world. However, the University definitely needs to take a look at its own digital media strategy and bring it into the 21st century as well.

Engineering Fees

Continued from Page 1

The University of Manitoba has similar tuition to other schools in the West but with fees as low as \$59, making the amount charged per term \$2003. It is also interesting to note that U of M only collects a measly \$2.78 per term for their endowment fund.

Moving further west to Alberta, University of Calgary costs \$2580.45 in tuition and \$328.55 in fees, bringing the total sum to \$2909 which is lower than the average fee across Canada. However, UBC will be increasing its fee from \$550 per course to \$750 per course which will increase the total sum by a significant amount.

Lastly, University of British Columbia tuition and fees compare with that of Calgary, at \$2584 and \$435 respectively. UBC charges \$28.50 as its Engineering Society fee, double of what we pay here at Waterloo.

Hopefully, this article has enlightened you a bit on the distribution of fees across Canada. At the end of the day, the question remains, is the fee that you are paying today worth the education that you are getting now and the experiences that this education will lead to in the future?

Sandford Fleming Foundation



Professionalism.
Leadership.
Communication.

There's more to an engineering education than engineering.



2010 John Fisher Leadership Award Nominations

The John Fisher Award for Leadership is made to an undergraduate student graduating in the Faculty of Engineering who has shown outstanding leadership throughout his or her academic career in activities that relate to Co-operative Engineering Education.

Nominations for the John Fisher Award can originate from student groups, faculty members, or other individuals. Letters of Support from colleagues, faculty, and others familiar with the nominee's accomplishments are extremely important and form the major basis upon which the Executive Committee of the Sandford Fleming Foundation will form its decision. Nominations must be submitted to the Foundation by April 1.

The John Fisher Award consists of a Certificate plus a citation, and an honorarium of \$2,000. The award has been named in recognition of the outstanding contributions made toward the work of the Foundation by its former Chair, Dr. John Fisher.

Nominations Must be Submitted to the SFF Office Manager by April 1

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

The Iron Archives

Predictions, Tatham Centre, Imprint Rivalry,
Quality of Teaching



ANGELO ALAIMO
2T ELECTRICAL

Winter 2005, Issue 5, March 30, 2005

Sung Hon Wu, 4B Computer made some interesting predictions for 2010. He states, "As I look at my crystal ball, I see all of the following happening by 2010. Why 2010? Only because anyone reading this article will have graduated by then, so no one can actually check if any of them become true!"

I guess Sung never thought anyone would also peer into the Iron Warrior PDF archives on the website, but I did. Anyway, let's see how Sung did with his predictions:

- Star Wars III is going to be a stinker.
- American cars are still going to suck.
- Marijuana will become legalized.
- The Nasdaq stock index will rise to about 4000 before it crashes in "tech bust II"
- Microsoft will still rule the world.
- Google will continue to revolutionize search. By 2010, it will be able to read minds.
- Entrance average to Computer engineering will be 78%.
- Lindsay Lohan and Ashton Kutcher will have been caught making out at some trendy nightclub
- There are Liberal Governments in B.C., Ontario, Quebec, and Ottawa.
- George W. Bush finally retires and goes back to Texas.
- Tuition will get insanely expensive and top \$6500 by 2010.
- 30 will be the new 20
- There will be more (way more) mad cows discovered in Canada.
- The Iron Warrior will still have better staff, better writing, and better stories than Imprint."

I'm not going to go into detail on every prediction Sung made, but I think he did a pretty decent job. American cars still do suck, Dubya did go back to Texas, tuition may top \$6000 very soon and will likely not be too far off \$6500 by the time I graduate. The last prediction on the list is debatable but I'm not going to be the one adding fuel to the fire.

Winter 2001, Issue 5, March 16, 2001

As many of you know, the Tatham center is dedicated to co-op, and is a place where many of us go for interviews. Nine years ago, this building did not exist, but was in the process of gaining funding for construction. Chris Farley, Feds President, pushed for the building-to-be in a letter to students.

"As some of you are aware, the University is in the process of designing and constructing a new building to house CECS. There have been extensive public consultations with students regarding design, including meetings, focus groups, surveys and direct student involvement in the design phase. The architects have been selected, and a site (between SCH and AL) has been selected and a very preliminary design complete."

Farley touts over 100 interview rooms which students would be able to use as student study space which segues into funding shortfalls. "The province only committed 50% of the total costs with the remainder to be found through private sources. This shortfall is approximately \$4.35 million.

As a solution, Farley mentions the co-op fee would increase by \$25 for 25 years to pay for construction, but the University would continue to solicit donations to reduce the period of time this \$25 must be paid by students. "Any monies raised would result in adjustment of the fee: either students would pay less than the \$25 fee increase or the fee would remain in effect for a shorter

period of time. "

After reading this article, I am now wondering myself if the University has made good to continue fundraising and if that any donations have been made to CECS to reduce the impact of this fee. And just so you know, the motion to add \$25 to the co-op fee passed April 4, 2001 and the Tatham Center was constructed as we know it today.

Winter 1991, Issue 4, March 15, 1991.

"We Don't Exist" - Kevin Johnston, IW Editor.

"Recognition. I don't expect any. I don't really know if I even deserve any. What I do know is that the people who have run this Iron Warrior this term have all put a lot of time and effort into making this a very respectable newspaper. I sincerely felt that most people on this campus would have recognized this effort. I was, unfortunately, proven wrong by the staff at the Imprint. In their last issue, they claimed to be "The Only Student newspaper in the city of Waterloo"

I was upset enough to make a trip to the Imprint office to talk to their editors. Since neither were available for comment I briefly discussed the issue with some of the workers. The whole issue to them was a big joke. They commented on the IW as being in the same realm as the Gazette; that it was only printed on 8.5"x11" paper, that they never saw any of the issues and that the IW wasn't a real paper anyways. Well, I'm sorry we don't live up to their extremely high standards of what a University paper should be.

I guess we'll have to make some changes to live up to the Imprint's standards. We'll just have to:

- Develop a 'Holier-Than-Thou' attitude when it comes to other newspapers.
- Start printing pictures of extremely scantily clad people to grab people's attention.
- Put in some really rude cartoons that will be guaranteed to offend almost anyone.
- Create an arts section that is totally out of sync with reality.
- Have a news section that seems like an extra editorial section.

Maybe if we do this we will gain a little respect from the Imprint staff. I don't know, maybe I'm overreacting a little bit. All I can say is that I'm glad I haven't paid my *Imprint* fee since 1B. Maybe some day soon many other students will see that this would be an effective way to combat the type of behavior the Imprint staff continually exhibits."

Winter 1985, Issue 3, March, 1985

"University of Waterloo's Image Distorted" - Lars Wilke, IW Editor.

Lars Wilke had some interesting critical views on the University and expressed them in the March 1985 issue of the Iron Warrior. He speaks about how the University does such a great job of getting great press and industry donations for research but does little to improve the teaching aspect of the University of which it gets so much praise.

"You're lucky to be going to the University of Waterloo" I was recently told by one of my friends who attends university in another city. "How So?", I asked her back, seeing no overwhelming truth in the statement. It seems she had just finished watching a documentary by the CBC's Fifth Estate extolling the university and its president Doug Wright. In the fifteen minute television profile, the university was portrayed as an aggressive business-like institution with strong industry ties; the place where "Doug Wright does it right!" Strange, they never interviewed any of the students.

Such cases of propaganda are not isolated. Last week I went to UW's news bureau to ask if they had any articles recently published about the University. I was immediately handed a dossier full of pro-Waterloo literature. Without exception the articles

Engineering Debt Load Survey Results

1. Term Total

Total Responses: 742
Number of Surveys Sent: 1873
Response %: 40%
of Students in Core Classes: 3122

2. Does your family support you financially? (726 response)

Yes: 58%
No: 42%

3. Average Cost of Living for a 4 month School Term (721 responses)

\$9,826

4. Average Cost of Living for a 4 month Work Term (616 responses)

\$3,752

5. Have you applied for local aid or other bursaries to pay for school? (729 responses)

Yes 48%
No 40%
Not Yet 12%

6. Have you applied for OSAP? (734 responses)

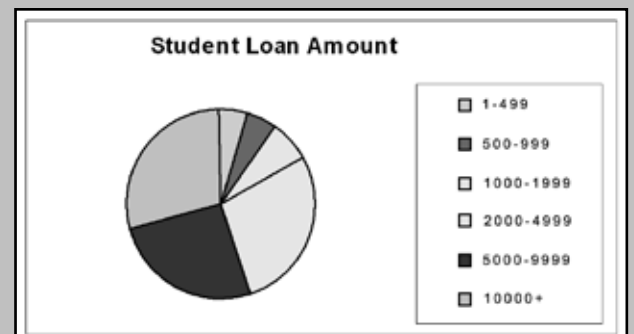
Yes & Received 44%
Yes & Denied 18%
No 38%

7. Do you have a loan for academic purposes? (720 responses)

Yes 46%
No 42%
Not Yet 12%

7a. How much is the student loan? (444 responses)

\$1-499 8%
\$500-999 1%
\$1000-1999 8%
\$2000-4999 19%
\$5000-9999 33%
\$10,000+ 30%



8. Has the differential tuition increases caused you hardship? (721 responses)

Yes 52%
No 18%
Not Yet 29%

9. How much debt do you expect to be in by graduation? (701 responses)

No Debt 20%
<\$999 3%
\$1000-4999 11%
\$5000-9999 13%
\$10,000-19,999 25%
\$20,000+ 27%

10. Do you live at home while at school? (733 responses)

Usually 8%
Used to 2%
No 90%

11. Have you lived at home while on work terms? (678 responses)

Always 14%
Sometimes 43%
Never 43%

12. Average of the weekly salary while on work term (515 responses)

\$664



glorified and praised the University, calling UW "The MIT of the North" or "the corporate campus".

The University undoubtedly has an enviable record. It would seem however, that all the success has gone to the heads of the University Administration, as indicated by these many recent articles."

Wilke continues his editorial stating, "Students suffer in taking a second seat to the research efforts," and also takes a jab at University amenities, "Waterloo has a

good reputation as an academic facility but conversely a poor reputation for providing social amenities."

Finally, he finishes with this concluding paragraph "Before UW compares itself with institutions such as MIT (where student/professor ratios are less than 10:1) it should stop ignoring those things which are not so ideal or well publicized. Perhaps then it could justify its claims of being a top notch university."

Cell Phones in Africa: A Limiting Progression



FARZI YUSUFALI
1B NANOTECHNOLOGY

Here's a statement to shock most: according to the IPS news webpage, about 85% of people in Africa own a cell phone with wireless coverage while 3% of that population does not have access to sanitation facilities. Here's another one: according to IPS, only 20% of Kenya's population of over 30 million has access to electricity. These figures, along with similar data provided, have provoked serious thought and discussion among myself and others over these testaments to, what seems to be, a digression in progress for these Third World countries.

According to the North American perspective, the average citizen finds that proper sanitation is by far one of the highest ranked in terms of necessities, with the likes of food and shelter in order to live. Knowing that most people in Africa prefer to use a cell phone instead of a toilet is saddening.

Being a former citizen of such a country (Kenya, to be precise), the notion of this imbalance in amenities makes it all the more disconcerting since I have a first-person perspective of the poverty that plagues, and eventually kills, the majority of people in this nation. Others would say that the introduction

of such a revolutionary piece of technology is definitely beneficial to the economy. But to what end? Without basic facilities provided to the average person, how much progress can there possibly be? While there are differing opinions present on this issue, I did not think that I would find an opinion that would clash spectacularly with mine; especially when this opinion originated from a person who is, quite literally, closer to home.

My father, giving his first-hand account of the changes in Kenyan society after traveling there recently, had

Instead of handing the help over into their waiting hands, help them learn to help themselves.

My father, giving his first-hand account of the changes in Kenyan society after traveling there recently, had me thinking long and hard about his take on the statistics given to him. Not only did it challenge the opinions I held on this issue, it also challenged other ideas that I have held strongly over related issues. In this discussion with him I learned that Africans creatively use cell phones for more than just small talk. The natives with access to wireless coverage have taken the cell phone as we know it (primarily being a communication device) and have transformed it into a banking system and an important business tool for farmers and vendors. The introduction of cell phone has seen a ten-fold increase of productivity, since they allow farmers to transfer money without having to walk for kilometers on end to do so. Furthermore, cell phone has become a major

source of income for most small businesses (vegetable and kiosk vendors) since most of their orders now arrive via the cell phone. Even the turn-boys (children who work on buses and trains) handle transactions, receive payments, pay debts and even transfer music with this device. Needless to say, this piece of technology has boosted numerous economies and has simply become an inherent part of life in African society.

After learning about this, I did not feel sad or angry, but rather, I felt that it brought new

hope to this "doomed" continent. With the little that these people were given, they took this contraption and created new uses for it that First World economists would never even fathom. Looking on the flip side of this coin, while there has been progress, there is still a limit to the continent's growth as a whole. While the efficiency of conducting business has increased dramatically, productivity of people has yet to increase.

Unfortunately, the African people haven't had enough of an education to realize that health is directly related to poverty. 80% of the diseases that claim many lives are preventable and treatable. In fact, many of these complications arise from unsanitary living conditions. It is the responsibility of the governments to educate its people on sanitary

practices and install such facilities.

However, as much as the developed world has done for this continent, the real underlying issue has yet to be addressed. So far, the success of the cell phone has been measured by the change in the average man's quality of life. On the other hand, the measure of a nation's development is taken by assessing the country as a whole. The key word here is "whole." While there has been change in the lives of many people, the attitudes still prevalent in the minds of the people have not changed. While the rest of the world struggles to help them, they refuse to help themselves. Successful families migrate outside the country instead of supporting their own community. For instance, why not install wells and sanitation facilities as a business enterprise? Obviously the need for such a product is there and so is the potential workforce to provide it. In addition to this simple idea, related adventures such as manufacturing and maintenance are within reach. Then why is there no move towards this change? The sad but truthful answer is that collective outlook of the people on this continent. They only act if it benefits one person or one family. They can't look beyond to see the benefits of change for their community or nation as a whole. The only way to change this is to educate. Instead of handing the help over into their waiting hands, help them learn to help themselves.

Google and the Prime Minister's Office



MIKAYLA MICOMONO
3A ELECTRICAL

One important part of our political system is the Throne Speech. It's where the Governor General tells Parliament, and the rest of Canada, what the Federal Government's goals are for the current session of Parliament. After that's been presented and everyone's had a chance to think about it, Parliament has a debate on the issues it raised.

Google decided that Canadians might be interested in these debates. After all, this is where the government and opposition parties let the public know how they feel about the issues raised by the Throne Speech and can attack the positions of the other parties. Therefore, Google approached the Prime Minister's Office (PMO) with an offer to stream the debate live on Youtube.

Now, this sounds like a good thing on the surface. After all, any way of making

politics more accessible to the average Canadian is probably a good thing. However, there are some problems in the details.

Google only streamed the Prime Minister's response to the Throne Speech. No other party's comments or criticisms on the statements of the government were available live. After all, who would want to worry about what the majority of the MPs think?

Google insists that this was not favouritism, or an attempt to influence the government. They claim that all the parties were offered the same opportunity to have their Throne Speech responses aired live, however only the Conservatives took them up on the offer. The NDP communications director, Nammi Poorooshasb, states that for at least his party, there was no such offer made. He says that when his party spoke to Google, Google stated that they did not yet have the infrastructure to support live streaming in Canada. They also were told that, once the infrastructure was in place, the NDP would be paying for this service. This is a very different story from the one

presented to the Conservatives, who received this apparently unavailable service free of charge.

This is not the only free service that the Conservatives have been given by Google. Google hosted an event where Canadians could submit questions and vote for the top questions asked. The top questions were presented to the Prime Minister Stephen Harper, and he was able to speak on the issues at length. This could be like a normal interview, except that it avoided those inconvenient things like follow-up questions, or an interviewer pointing out that he hadn't really answered the question.

Now, while this may seem rather unfair, it's still not illegal. After all, people are free to give gifts to whoever they'd like to, right?

Actually, not quite. The thing is, Google is registered to lobby the Prime Minister's Office on issues regarding copyright and telecommunications. There are rules regarding gifts from organizations that are registered to lobby the government. These rules are very simple: don't accept them.

Now, don't worry. Our government has an answer for this problem too. After all, organizations like the CBC are registered to lobby the government, yet they also cover the government's activities, often live. How could this possibly be different? Clearly, Google has every right to do this as well.

However, the Google coverage wasn't exactly like a news agency covering the Prime Minister. The PMO was able to decide almost every word of what was said. There was no analysis, not even a pretext of a marginally unbiased view. And Google isn't a news source. CBC News and Google are completely different organizations offering completely different services. Comparing an interviewer asking pointed questions, with follow-up questions, forcing Harper to stay on topic with letting him ramble on however he likes is ridiculous.

So, why isn't there a huge public outcry about this blatant violation of the rules meant to protect the fairness in the decisions made by our government? Well, why don't you Google it and find out?

Happy Birthday Einstein!

Study, Princeton, New Jersey, where he took a position when he immigrated to the United States in 1933, his instructions were not carried out completely. Thomas Harvey, a pathologist who undertook the autopsy, took Einstein's brain and eyeballs, without the permission of Einstein's family. Harvey later received permission to keep them from Einstein's son.

The eyeballs were given to Henry Abrams, Einstein's eye doctor. They reside, as far as we know, in a safety deposit box in New York City.

Thomas Harvey kept the brain for himself, he had the intention of studying the brain himself, but he was not particularly knowledgeable in the field of neuroscience. Over the course of more than 30 years, the study of Einstein's brain went nowhere. It is a very interesting story, I recommend that you all Google, "The Long Strange Journey of Einstein's Brain," if you wish to know more.

One study done by Marian Diamond in 1985, showed that Einstein had a high glial cell to neuron ratio in one section of his brain, a part of the frontal cortex. Glial cells are the cells that protect neurons. This result was enthusiastically received in the media. In fact, my Psychology 101 textbook has a reference to it! However, it is widely considered that her study was "bad science". Diamond's paper only reported 4 out of the 28 studies she did and she has openly admitted to rejecting results which did not fit her findings. Furthermore, she only reported ratios of glial cells to neurons, not actual numbers. A high ratio of glial cells to neurons could have meant that Einstein's neurons were dying off rapidly (which is related to senile dementia).

In any case, Einstein's brain has not proved to be very remarkable or special at all. So all of you aspiring geniuses take hope! You don't have to have a very special brain to leave your mark on the world.

Some miscellaneous facts:

* The element Einsteinium (atomic number 99) was named after Einstein four months after his death.

* In the movie, "Back to the Future", the character of Dr. Emmet Brown has a dog named Einstein.

* Einstein did not believe that black holes could exist.

* The 1999 Times magazine named Albert Einstein as the person of the century.



Einstein's statue at De Haan, Belgium



CAITLYN CARTWRIGHT
1B CIVIL

Any math nerd worth their weight in calculators knows that March 14 is Pi day! But did you know that March 14 is also Albert Einstein's birthday?

Sunday, March 14, 2010 was Albert Einstein's 131st birthday. Albert Einstein is probably the most famous scientist of, well, pretty much ever. Einstein is often considered the father of modern Physics. His name and persona have permeated popular culture.

Einstein himself was not too fond of all the attention he received from the public. Before he died, he left instructions to cremate his remains and secretly scatter them to discourage idolaters. Though his ashes were scattered at the Institute for Advanced

ENGINEERING SOCIETY EXECUTIVE REPORTS

Outgoing Acting President Report



MIKE MCCAULEY
OUTGOING ACTING
PRESIDENT

I'd like to start by congratulating Tim Bandura who will be taking on the position of President for A-Soc for the next 16 months. I have had the pleasure of working alongside Tim for quite some time and I have no doubt that he won't do anything less than an outstanding job! Tim has the experience along with a great vision and I look forward to seeing him excel in his new role starting this coming fall.

A couple of items to end off the term..

Firstly, hopefully you all had a chance to

enjoy the 'Rhino Day' edition of POETS this past Friday. POETS was filled with balloons and signs wishing everyone a happy Rhino Day. I think everyone was just as confused as I was but it no doubt was amazing and definitely ended off the week with some excitement!

TalEng was last Tuesday and the election results were officially revealed!! I would like to give a huge shout out to Tim, Leah, Marc, Sean, and Praveen for being great sports in our edition of "Welcome new execs" which involved plenty of unbaked pancake mix, maple syrup, icing sugar, and some raspberries to top each of them off! Congratulations to all the new exec – we look forward to seeing you take over in the fall!

We will be having our final EngSoc meet-

ing of the term (potluck) on Wednesday, March 24 starting at 5:30pm in POETS where we will be swearing in the new exec.

End of Term (EOT) party will be in POETS Friday, March 26th from 9pm-11pm. Be sure to come out and end the term off right!!

Lastly, I wanted to extend some well deserved thank you's. This has been a great learning experience for me and it would not have been so rewarding without the outstanding people around me. Firstly, I want to thank Tim, Eric, and David for doing an amazing job working as a team to make this term run as smoothly as possible. I counted on each of them to do so much and I can't thank them enough. I would also like to say a huge thank you to Sasha Avreline for his continued hard work and dedication to the

many facets of the VP Education portfolio that he still remains involved with, most notably the PDEng Task Force. Sasha, you continue to amaze me. A special thank you to Mary for her outstanding work in making my job so much easier than it otherwise would be! To our enthusiastic directors this term who have put on a glamorous array of events; continuously displaying their passion and energy for the Society. Last but not least, I would like to thank Robin Jardin, Dean Sedra, and all of the support staff in the Dean's Office that I have had the pleasure of working with during my term. We are very lucky to have such a dedicated team here at UW!

Thanks again and good luck with the end of term and finals!

Outgoing VP External Report



MIKE MCCAULEY
OUTGOING VP
EXTERNAL

It's hard to believe that this is my last report as your VP External. The last 16 months have been very rewarding for me and the last 4 definitely kept me on my toes right up to the end. I want to thank everyone who has been there along the way to help, give guidance, be amazing conference delegates, and simply just to support me. I would not have been able to enjoy my term without each of your contributions. Although I am sad to see my term come to an end, I look forward to continuing my involvement with EngSoc and I hope to get in some more conference fun!

On that note, I would like to take this opportunity to introduce Leah Allen who will be taking over my position as your next VP External. I have had the chance to speak with her on a number of occasions and I have no doubt that she will do an outstanding job. She brings an amazing personality and a great sense of enthusiasm to the position. I look forward to transitioning with her over the coming weeks to prepare her for a great term as VPX.

I have a few last orders of business to end the term. The first is March Break Open House. I would like to thank the many volunteers who participated throughout the day. Your help was very much appreciated and the organizers personally thanked us for having EngSoc back this year.

Bus Push took place March 13th in support of the Heart and Stroke Foundation and the event was one of the most successful ever for EngSoc! A huge thanks to the organizers (JD O'Leary, Grant Campbell, Dave Halford, Stuart Pearson, and Kristen Roberts) for putting on an outstanding event and thank you to the approximately

50 participants for showing your support! Over \$5000 was raised!!

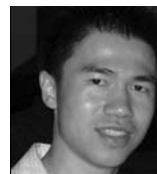
Explorations went down last week and I'd like to thank Amanda LeDuc for taking an excellent lead throughout the term on making this year's one of the best! It also could not have been possible without all of the volunteers so a big shout out goes to everyone who helped out with the event as well!

The last update is for Canstruction. I'd like to thank the last minute volunteers (Samantha Pinto, Dushanth Joshua Seevaratnam, Alex Wade, Michael Leung, Tim Sipkens, and Eric Cousineau) who gave up their time last Thursday night to put together the EngSoc contribution. Tim Bandura unfortunately wasn't able to be there for the actual event as he was competing in CEC for the weekend but he did a great deal of prep work for the event and deserves a big thank you! All cans were donated to the KW Food Bank to support those in need in our community.

Finally, I'd like to thank the IW for putting up with our consistently late reports but always greeting us with a smile regardless of how much Michelle and Amrita hated us! Thank you for all your hard work in making the IW the most envied engineering newspaper in the country.

I have thoroughly enjoyed my term as VPX and I enjoyed the opportunity to represent you throughout my time. I hope that I have been able to inspire some of you to consider attending a conference or two and if you haven't had the chance, I encourage you to consider it in the future. I can assure you it will be an experience you won't forget and it will open your mind to new experiences, new people, and new ideas. My term was no doubt a unique one but I would never think to trade my experiences, or the time I had to work with so many amazing people. I'm out! –Mike

Outgoing VPED Report



DAVID LIU
OUTGOING
VP-EDUCATION

Hey A-soc,

Here are a few last updates as the term comes to an end. We had our last academic rep meeting where the reps received updates on PDEng, Exam Bank issues and Waterloo SOS.

PDEng Task Force is almost ready to release the 2nd set of recommendations for faculty and student feedback. You can get more information at <http://www.engineering.uwaterloo.ca/pdengrenewal>. Overall, I would like to summarize the changes that will make PDEng more flexible, accommodating and user friendly. All of the changes will be passed to our Dean when he makes the final call for implementation. Dean Sedra is very supportive of the initiative and the changes may be implemented as soon as this Spring term. I would like to thank Sasha Avreline for the tireless and phenomenal work he has done to move the Task Force team forward. As a student rep, he has done so much for PDEng in so many different ways.

Giving EngSoc exam bank access to faculty members has been discussed a lot this term. From *Iron Warrior* articles, academic rep meetings and EngSoc meetings, a lot of perspective and reasoning have been raised to agree/disagree with the idea. From the faculty's point of view, they believe they should get the access if needed, but they do not have any intention of controlling our exam bank. From academic reps' point of view, there is a benefit to giving access to faculty members because instructors can take down irrelevant exams that waste students' time, correct wrong solutions and it will give new professors an idea of the previous exams and the level of difficulty. From EngSoc members' point of view, they are afraid the exam bank

will be shutdown (similar to the shutdown of SciSoc exam bank 2 years ago) and do not see sufficient benefit for the students. Perhaps, it's worthwhile getting the different groups to talk to each other and arrive at a compromise...

On the brighter side, Waterloo SOS expansion to engineering faculty is moving slowly but steadily. By the Fall 2010, Waterloo SOS (Students Offering Support) is hoping to hold numerous midterm/final exam aid sessions for first year math and science engineering courses. A number of logistics have been discussed with the Associate Dean and have received faculty's consent. Now, it's up to you and your friends to get involved in Waterloo SOS to become tutors, coordinators and execs for a great cause. The idea is to have upper year students run exam aid sessions and raise money to support education projects in Latin America. All student participants at these sessions pay \$15-\$20 donation for this great cause. If you are interested in getting involved in the Fall term, email me at s14liu@uwaterloo.ca.

I would like to take this opportunity and thank all of my directors who have volunteered their time from their busy schedules to academic rep meetings, course critique work, and resume critique sessions among others. It is definitely this kind of energy and spirit that keeps EngSoc going and they are the ones who get things done at the end of the day.

My term in the office is almost over, but the new Exec are eager and ready to take on the roles next term. One of my goals as VP Ed was to build community throughout UW Engineering and I think more people are becoming a part of EngSoc which is awesome. Besides Waterloo SOS, I have started a motivational speaker series and www.light-it-up.org, an educational website. Another goal was to be good VPED. That meant a lot of things but I feel I got most of them done so I hope people are satisfied with my job. What you think? Let me know at s14liu@uwaterloo.ca and stay in touch.

Outgoing VPI Report



TIM BANDURA
OUTGOING
VP-INTERNAL

Sniff, Sniff... It's all over? Tear! 16 months just seem to have blown by. I hope everyone really enjoyed the events this term. They were all run by a super amazing group of directors who put countless hours into making sure you had an opportunity to relieve stress and have some fun. I wish I could thank all of my directors in this report, but that would be a ridiculously long list and Kanye West might not let me finish. But not to worry my

beloved directors, I will give you a hug or a high five or a handshake or a pat on the back!

Of special note, I'd like to thank the team that pulled it together for Canstruction. Samantha Pinto, Eric Cousineau, Tim Sipkens, Dushanth Seevaratnam, Michael Leung, and Alex Wade brought it together and gave an amazing example of good ol' ingenuity and built a crazy structure out of cans!

Engineering Society Meeting #6, or Potluck, will be held on March 24th, at 5:30 PM in POETS. It is a potluck, so bring some fantastic food for everyone to share! Also, new exec will be sworn in, and we will have our Winter 2010 Family Photo taken! Directors

should make sure to attend for an extra appreciation gift and we will also award the Paul Harlick award for one set of amazing class reps. Also, tonight will be another EngSoc pick-up hockey game at CIF Arena at 11:00 PM. You need a stick, skates, gloves, and helmet to play. Don't worry about your skill level, anyone can play. I've only picked up a stick twice and I managed to slip one by Sean for a goal! If you can't make out to tonight's ice game, there's another opportunity on March 31st at 11:00 PM. On Sunday, March 28th, the Engineering jazz band With Respect To Time will be holding their termly charity fundraiser. It will be from 5:30 PM to 7:30 PM in South Campus Hall's Festival room.

Tickets are on sale now in the Engineering Society Office for \$10 each. All proceeds are going to Ride to Conquer Cancer (see <http://www.conquercancer.ca/goto/allychan>).

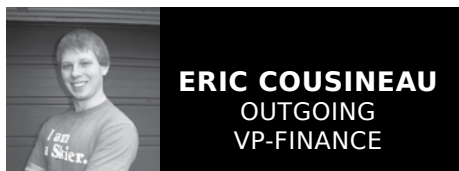
I had a wonderful time being your Vice President Internal. I really enjoyed working with all of you and I'm excited to see what the future holds. Sean Walsh is a fantastic guy and will be an amazing VPI for you all on A-Soc for the next 16 months. He's got experience and energy. Thanks for all your support.

So long! Farewell! Auf wiedersehen! Good-bye! Adieu, adieu, to you and you and you!

<3 Tim

ENGINEERING SOCIETY EXECUTIVE REPORTS

Outgoing VPF Report



ERIC COUSINEAU
OUTGOING
VP-FINANCE

Well it's been a great 16 months! I've had a ton of fun as your VPF and I've learned a ton! I feel like I have succeeded as your VPF by accomplishing almost all of my goals. I got a new Novelties Sign installed, and the price of leather jackets reduced. We developed an open relationship with Retail Services, and now encourage them to advertise Leather Jacket Day as much as possible in the Engineering faculty. I ran ordering of custom hip flasks and class t-shirts in the spring, and got the Event-A-Tron working again. I've organized and hosted the two most successful Novelties Sales that Mary or I can ever remember. In the spring we sold \$1800 worth of merchandise in two days, this term we blew that record out of the water by selling \$2800 worth of stuff!

I want to thank all of my directors for the hard work they put in this term. Thank you Adrianna, Cat, Forough, Karen, Lesley, Rebecca, Tim and Jessica. A special thank you goes out to Amanda for all the extra work she put in, including the pretty Novelties Board she decorated!

We've developed a wonderful relationship with Gold Crown Brewery on King Street. They decided to brew POETS Warrior Lager for us again, and it is now being sold in POETS and at all Engineering events licensed by Bar Services. This lager was brewed up until the very early 2000's and was named after our lovely engineering pub on campus. The doors of POETS also have a mural of the label (which was designed by the Brewmaster's wife). As of right now, we will be selling the beer for the foreseeable future, and I'm very happy about that!

Even though we still have a week and a bit left of classes, we're holding EOT this Friday to avoid a conflict with Good Friday.

It will be in POETS and the patio will be open to accommodate up to 150 people! Mother Nature thinks that there will be scattered showers that day, I'll let her know to change her rain plans. We'll try and put up something to cover parts of the patio if there's going to be rain. The POETS managers have done a great job this term, they've organized Theme Thursdays, decorated POETS for special holidays, pulled off a super successful Super Bowl party, and even had POETS open after EngSoc Meetings for people to unwind and have a beer, or ten. I've seen POETS dressed in red, green and even balloons last Friday (unrelated), it's been a great term for POETS indeed. Thank you Cat, Scott, Mike and Kim, I've enjoyed working with you very much!

Novelties has quite a few new items on order since the sale pretty much cleared us out! We have a brand new type of travel mug on order, which has stainless steel liner instead of plastic. We have more and smaller sweatpants on order, Black Sigg

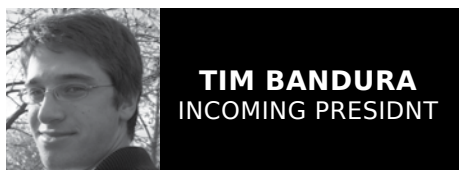
Bottles are on the way, and we have hockey jerseys with the EngSoc logo. Mike McCauley has designed a T-Shirt that will be on sale in Novelties this week, come check it out! We also have some sleek new leather folders that will make you look sharp in an interview. I wanted to remind students that Novelties is online at engsoc.uwaterloo.ca/novelties, but we're still working out the kinks in the ordering and maintenance of the inventory. You can make your orders online, and mail us a cheque. When we get the cheque we'll mail you your items. Now you can get those items on co-op too!

I want all directors to submit their receipts for reimbursement by EOT Friday. This will give me enough time to sort everything out before lectures end.

Last but not least I want to welcome Marc Tan as your new VPF. I have the utmost confidence in his ability to serve you as VPF. Good luck Marc!

This is Eric signing off! Thanks, it's been a blast A-Soc!

Incoming President Report



TIM BANDURA
INCOMING PRESIDENT

Ahaha... I guess it is a good thing I have some practice writing these things, especially since there are many, many more to come...

First, I'd just like to thank everyone who came out and participated in this election. I realise that there weren't a lot of contested positions, but it was still important that you all asked questions of all the candidates.

I am extremely excited to be your new EngSoc President for the next 16 months! It will be a whirlwind of awesome! There's a lot I'd like to try with our Society, and I'd love to hear from all of you on what you think needs to be done. It will be an adventure, and I am happy to tackle it with all of you alongside me.

Only one piece of news to report on: Hopefully by tonight, we will have directorship applications open for this Fall. They will be online on our website www.engsoc.uwaterloo.ca. An email will be sent out to the mailing list and a link will be posted on

our front page when it is all set up. Please take a look at the list! Don't be shy, just apply, apply, apply! If you have any questions on any one of the directorships, don't hesitate to contact me or any other exec member (past and present)! We need a fantastic group of amazing directors to maintain our high calibre events and services! You can all do it, just send in that application! If you want to apply for webmaster, please send a copy of your resume in addition to the application form to asoc_prez@engmail.uwaterloo.ca.

If any of you have a question, comment, concern, quote, or query about directorships, executives, events, services, or just Engsoc in general, send me an email! If you have new ideas or initiatives, tell me and together we can see what can be done!

Finally, I'd just like to close by thanking a lot of people. I'd like to thank Amanda Hoff for helping me write this report. Her previous report provided a lot of insight on how to write an incoming exec report. And I'd like to thank our previous exec; Mike, David, Sarah, and Eric have done a lot of incredible work over the past 16 months. I can only hope to match what you've put into this Society.

Incoming VPI Report



SEAN WALSH
INCOMING
VP-FINANCE

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

So let me start by introducing myself; my name is Sean Walsh... Oh wow I have this weird sense of Déjà vu! I hate when that happens. Anyways, as some of

you may know I have been selected to be your new VP Internal just like it says above and really I can't wait!!!

As mentioned before I want to get your feedback and when I do I intend to include it in the IW with a chart like this.

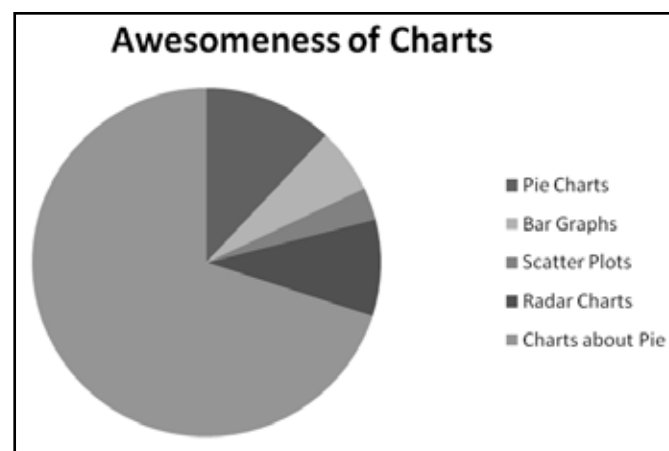
See!? Isn't that fun having a graph to look at? Except next time

you should be a part of it, and this is how I'm going to try it. Using your Engmail address email swalsh@engmail.uwaterloo.ca your answer to the following question:

Did you know that even if you don't attend the meetings you may still be a part of EngSoc?

I look forward to hearing back from everyone and on a separate note don't forget to apply for DIRECTORSHIPS!!!

Have a great summer A-Soc! I look forward to enjoying the coming fall term with you!



Incoming VPEx Report



LEAH ALLEN
INCOMING
VP-EXTERNAL

As another term comes to an end, another set of incoming executive reports comes out. Firstly, I would like to congratulate all the incoming exec, you are all wonderful and I look forward to working with you! Secondly, I would like to thank the past exec for the wonderful surprise they had in store for us at TalEng. Thirdly, I would like to let you all know how excited I am to get started as VP-External and represent A-Soc for the next 16 months!

I would like to take this time to let you know what some of my goals are for the next couple of terms. I plan on improving awareness among Society members and the student body about external organizations. I plan on informing the Council on all external events/initiatives and any issues that are being discussed within CFES and ESSCO. I would also like to

see more students get involved with external organizations such as CFES and ESSCO. On that note, for more information on these organizations please read my article about these external organizations in this issue of the *Iron Warrior*.

As for directorships, I plan on working closely with all directors and I plan on being available for them to make every event a success. I am very excited to be working with all the charity directors; bringing you fun and rewarding charity events that will continue to give back to the community. If you are interested in applying for a directorship, now is your chance! Applications are due by April 6th and YOU can apply online at <http://engsoc.uwaterloo.ca>.

Lastly, I plan on working with and supporting all the other executives to help make the next 16 months the best that they can be! Please feel free to stop me in the halls or send me an email at lmallen@uwaterloo.ca if you have any questions or ideas!

That's all for now! See you in September!

Incoming VPF Report



MARC TAN
INCOMING
VP-FINANCE

Today is a defining day, a day in which you the people have ingested my knowledge and have regurgitated me as your pride. Between today and tomorrow you will understand to the full extent my financial knowledge that will be the Engineering Society's demise. I am Marc Tan and I have agreed that the Labradors do not agree that cottage cheese should not be classified as real cheese. If this cheese was classified as real cheese then the repercussions will be devastating. The people of the cheese world will accost both you and I, for they despise cottage cheese. I will not like this happen. I

am Marc Tan and I am pro cheddar.

On to more important things...

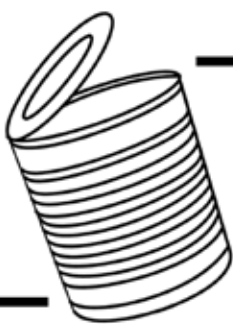
Thanks to everyone who came out and voted. I wished Griff Tan could have worked out, however the position wasn't big enough for the both of us, unlike my counter parts Mina and Jon and their togetherness... though they are just weird. I want to commend Griff on his campaign and all the other Exec who were acclaimed or who won the election. If you are interested in what I'm going to do for the next 16 months look me up in the last issue of the *Iron Warrior*, it is quite informative. Finally I want to thank Paul and Mike for running a super election, you guys did a great job with everything.

PS: The finances are probably good (haven't gotten the reins at the time of writing this).

Incoming VPED Report

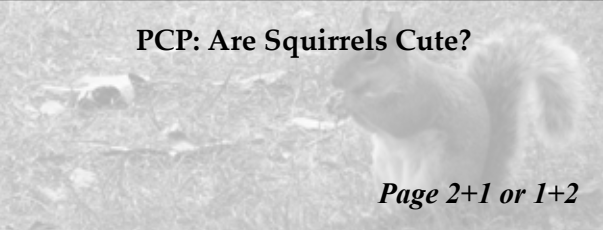
Unfortunately, VP Education for A-Soc was not chosen at the time *Iron Warrior* Issue 5 was sent for publica-

tion. Please visit <http://engsoc.uwaterloo.ca/node/4473> to read the Incoming VP Ed report.



Review Based on Trailer

 Broadcast Yourself
 Page 1.99999999

PCP: Are Squirrels Cute?

 Page 2+1 or 1+2

How to Raise Money for E5 and E6

 Page e^-iπ

Colonel Sanders' Mustache was watching you last spring and actually since then too

UW Races to the Top with Athletic Facilities

ALISON LEE
 WRECKED ATHLETE

The Globe and Mail's annual University Report Card gave UW an A+ this year for its outstanding athletic facilities- and it's not hard to see why!

Rival universities like Queen's have recently spent millions on new athletic centers, but Waterloo uses innovative cost-saving techniques to treat its athletes best while still being able to fund multiple new engineering and math buildings. Who needs a stadium when you have a field and temporary bleachers? Why have a rock wall when you can have a bouldering closet? Who wants a stretching area when you can get checked out by the bulky dudes with the bars and plates? These are all serious concerns that Waterloo has addressed to optimize the workout experience while keeping student fees low.

Waterloo's newest facility, CIF, is placed

strategically north of Columbia St so students can warm up to their workout just by walking or biking all the way there. It's home to an ice rink, fitness centre, gyms and studios, but most students prefer the charm of the central campus gym, the PAC. Anyone who's been to the PAC knows that it houses only the latest cardio and weight training machines from the 80s. The equipment is even sourced from Value Village so that students can solve unique engineering design problems before getting to use it. The cozy size of the weight room is designed to increase peer interaction, which fosters a motivational sense of cooperation to enhance the workout experience.

"It's scientifically proven that smelling the hard work of others around you releases endorphins...it's like Gatorade in the air...really innovative!" said Peter James Paul, UW's fitness coordinator.

See RUN INTO A WALL page 2



Alison Lee

Treadmills, hurdles, archery targets and other miscellany in PAC's main activity studio

IW To Overcome Financial Constraints

AMRITA YASIN
 CHIEF PENNY PINCHER

All of you are aware of the economic downturn that hit the world in 2B (I am in 3B now, do the math). As students, we have put too much sugar in our resumes; we must now use the best toothpaste in the market to make our smiles flashier for interviews. IW is no exception. We depend entirely on revenues from companies who are intelligent enough to know that students only look at pictures and comics in newspapers rather than the text, because it reminds them of their CSE textbooks. Unfortunately these companies don't have any money to waste on students' entertainment anymore. You have seen the result as IW has developed a special liking for black and white pictures in the past year and IW staff have become skilled at assessing the different shades of gray better than distinguishing between colours. But lo and behold! IW is determined to fight to colour and has come up with an action plan to improve its financial position:



Roy Lee

- As Nano seems to be the word in the air, IW will now be printed on nano-scale fragments of newspaper to save on paper costs. A special magnifying glass will be attached to every rack and will stay there until stolen by *Imprint*, who like our racks better than their own. In case it does get stolen you can

buy another magnifying glass from the IW office for just 150 words.

- IW staff will soon be harassing students to get their *Imprint* refunds and donate that money to IW.

- IW staff will now start charging students who knock on the door at the beginning of the term to ask for WEEF refunds.

- IW will also send an invoice to the Department of Civil Engineering, whose students use IW stapler on a weekly basis.

In case the invoice is not paid, the use of IW stapler will be revoked and the TAs will be left on their own devices to match the unattached pages by decoding students' writing.

- IW will smuggle the newspapers out of UW. This smuggling will be so secretive that the receiving end is led to believe something of high importance is being exchanged, and will pay any price demanded. If the Open Ontario plan is successful our international readership will increase by 50% which can in turn be used for international smuggling.

In these tight times, everyone has to cut corners and pinch pennies. A student newspaper is no exception - we don't even have the standard beer fund most students keep aside for dire straits. Hopefully these drastic measures will bring us the funds we need to take over the world!! - *cough cough* sorry, produce a respectable student publication.

Canadian Provinces: 10? 11? 26?

MIKAYLA MICOMONACO
 BITTER CITIZEN

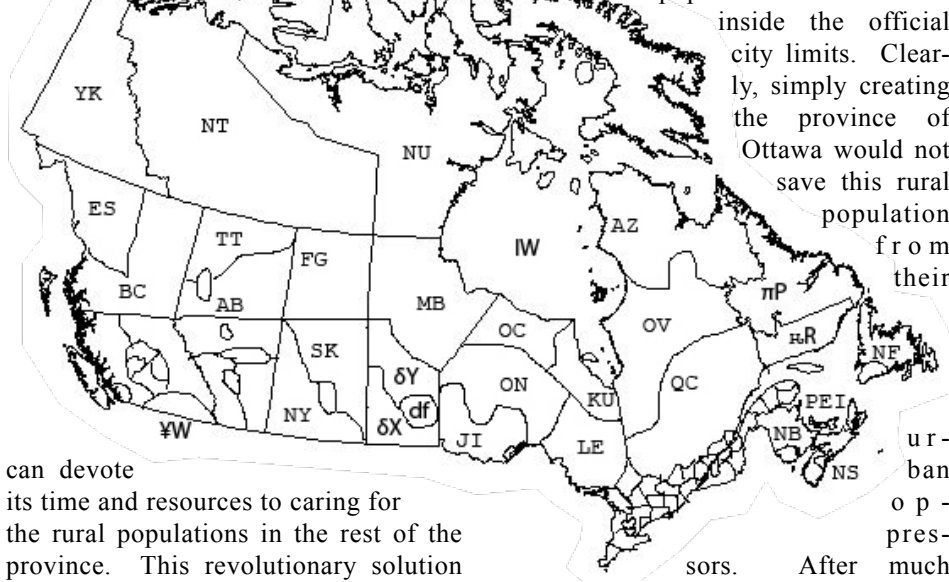
The MPP of Owen Sound brought up an urgent concern. Toronto's needs overshadow those of the rest of Ontario. Rural Ontario is suffering dramatic hardships because of Toronto's existence.

In an entirely unexpected turn of events, he actually had a solution. Toronto must become its own province. Let Toronto take care of itself, and the province of Ontario

notable new provinces include Calgary, Montreal, Halifax and Elmira.

The details of creation of some provinces were more difficult than others. Kitchener and Waterloo were created as separate provinces, however they are now considering merging. However, as they were unable to agree to amalgamation when they were mere cities, this seems unlikely.

Another problematic city was the former city of Ottawa. When the townships around it were amalgamated into Ottawa ten years ago, a sizeable rural population was included inside the official city limits. Clearly, simply creating the province of Ottawa would not save this rural population from their



can devote its time and resources to caring for the rural populations in the rest of the province. This revolutionary solution amazed the province, and indeed the rest of the country, with its genius. Soon after rural Ontario shook off the oppression of Toronto with the creation of the new province, other parts of the country followed suit. Rural populations across the country protested and insisted the removal of their cities. Our measly ten provinces have now been joined by dozens, if not hundreds, more. Some

urban oppressors. After much debate, there were two provinces created, freeing the rural part of Ottawa to govern itself once more.

This is an ongoing process, so watch out for more provinces to appear in the future. To any rural residents out there, if a city in your province is oppressing your needs, make sure you contact your MPP to have that city added to the list of cities about to become provinces.

Alcoholism: The New Inner Peace

**AMMAR MASUD &
FARZI YUSUFALI**
PHD IN CULTOLOGY

A high school yoga course had been cancelled for several weeks due to complaints received from parents of students enrolled in the course. The parents claim that yoga is more like a religion than actual exercise to promote fitness after reports of students repeatedly chanting “All hail the Pink Tie.”

Several meetings were held by the school, attended by parents and the teacher, to discuss what actions to take so the course may continue without associations with religion. After much talk, the school board concluded to bring the course back but with a slight twist. It was made mandatory for students to consume alcohol in the yoga studio.

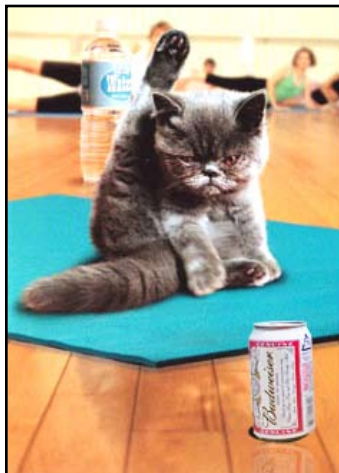
The local police have agreed to allow underage drinking, but only within the yoga studio.

“How will my son be able to think of religion when he can’t even stand up straight? It’s the perfect solution,” says Mr. Angus, who is credited for having the idea and sharing it at one of the meetings.

Local scientists at the University of Wa-

terloo have claimed teaching teenagers to control their bodies when intoxicated at this age is very beneficial. It will help them acquire some restraint when they are legally allowed to consume alcoholic beverages.

The yoga instructor was surprised by the results and claims that “Beer Yoga” is much more effective in acquiring inner peace than yoga alone ever was. With the added relaxation provided by this depressant (the misconception being that alcohol makes you hyper), the path to inner peace has become achievable. The students experience mind-numbing peace, despite the deficient capacity to remain on their feet. It is also important to note that the instructor is intoxicated during the lesson, more so than the students due to having to teach the course multiple times a day.



There is talk by the teachers of offering “High Yoga” for students who do not wish to consume alcohol. The goal of High Yoga will be to promote breathing exercises.

With the intoxicating success of this new phenomenon, this course has inspired many universities nationwide to create beer yoga clubs. The most surprising aspect of the newfound popularity of beer yoga is the talk of creating a new program called “Beer Engineering” at the University of Waterloo. Many students have shown interest in

switching from their current engineering program to Beer Engineering if it is created.

Research and testing has begun to investigate if other courses may also improve

with the addition of alcohol consumption. Potential courses to add this benefit include: beer math, beer business, beer science and, the most suggested option by students, beer lunch.

Super fast track times

RUN INTO A WALL from page 1

In fact, the PAC is full of innovation: treadmills face the wall so that students can visualize the end of their run, elderly faculty members voluntarily make sure that female students have proper workout form, mix-and-match free weights let students fix muscular imbalance, and much more. The pool is so state-of-the-art that the ceiling isn’t falling down this term, and there are some new tables in the squash courts.

The best hidden gem of that PAC is the Red Activity Area, where our professional track is. “We took your standard 400m track and scaled it by a factor of ten,” explained Paul, “so now we have a 40m track in hopes that our track stars will also scale their times by ten.” The track surface was salvaged from a dumpster and rolled over the floor overnight, compared to the construction of other tracks, which take months or years. Other surprises found in the activity areas include archery targets, mysterious scraps of wood, and large blocks of foam. There’s so much to discover that it’s fun to get

lost in PAC’s confusing hallways!

Thanks to the support of UW admin that we earned our A+ from the Globe. It’s great to know that fitness is important at Waterloo and it reflects in the performance of our athletes. It’s easy to train hard and competitively when you have so many resources accessible right on campus. The state of UW’s athletic facilities hasn’t changed in decades, so it would be no surprise if in ten years the PAC is still loyally serving our workout needs.



Alison Lee

**The ghetto track hidden
from main PAC view**

Review Based on the Trailer: Waterloo Management Engineering



JON RADICE
HARD-CORE CRITIC

Sometimes I wonder if I chose the right engineering discipline. Luckily thanks to this wonderful little site known as YouTube, I can now get a taste of what all those other engineers are doing in their programs. After watching the latest video posted on the Waterloo YouTube Channel, I’ve now realized all the fun I am missing out on by not being in Management Engineering. The floating box told me that a strong engineering background could be obtained through organizational behaviour, a keystone lost on me early on in my school career here. Sure I watched the first half of the video with no sound (sorry but my sound card is so advanced, it chooses to eliminate all stock music from the early 90’s), but I’ve learned a few very interesting facts about ManEng. If you take Management Engineering you’ll get to enjoy:

-Chess matches

-Maps of South America
-Lollipops
-Shapes no more complex than squares, no less complex than triangles.
-Waterloo buildings in perpetual nuclear winter.

-A lack of sore throat lozenges

If this seems like hard work to you, don’t worry. Management engineering offers some sweet flatscreen computer monitors, the means to control the production of the world’s cheese, and video cameras so precise that their minimum zoom won’t even cover an entire face. And if you do really well in your class, the associate professor will hang up your finger painting in his own office for all your peers to see and be jealous.

I can safely say that after watching this video, I was incredibly primed to switch over to the Management side. But then I realized the deep, dark side of this video. Related videos linking to whale depression, the fact that Lisa was playing chess with no one, the cryptic message on a whiteboard. Large square turns into a small triangle which turns into large square that turns into

a big triangle? Typing that last sentence into Google and looking at the first book that shows up, we see the big problem here. Waterloo Management Engineering is actually kidnapping depressed sea animals, dressing them up as students in order to keep them in sweatshop-like conditions in order for them to sell designer quilts in order to cover the cost for new engineering buildings! Look at the signs, people! Management engineering

began at the exact same time as construction for the new buildings started. No one has ever seen a Management student working on a project. And there is a shocking lack of any large freshwater sea mammals anywhere in Ontario. We’re through the looking glass now people, the real question is; will you stand idly while you know that the exploitation of cheap porpoise labour is all around you? I surely will not stand for this.



VP in charge of stuff to do with academics Report

VP GRADES & TRANSCRIPTS
POLITICAL SCRUTINEER

Hey A-Soc,

So the end of the term is here and a lot of things happened this term. First of all the UW Bike Race hosted by EngSoc was a great success, the turnout was super and \$5000 in prizes were handed out – students from all disciplines and classes came out to race like crazy.

Also Waterloo “Dot Dot Dot Dash Dash Dash Dot Dot Dot” is well underway and has been experiencing a growth in demand so I would encourage everyone here to volunteer, help cover every campus bulletin board with posters and teach students how to take an integral. Finally, the new innovative

project Blow It Up has experienced a more than average number of visits to the website. While currently it is only meant to help first year chemical engineering students, I would like everyone in engineering to take a look and get involved with the project as much as they can. Oh, almost forgot – we also had a great motivational guest speaker this term who tried to motivate students to come out to motivational speakers. Perhaps next term we should line up a guest speaker to motivate us to reply to every single email we get in under a year. Some of the potential strategies would involve putting in your signature line that if you replied to this email in over 24 hours you owe the recipient a new laptop and how to claim it.

This term has been rather uneventful in

terms of academic decisions and there isn’t a whole lot to talk about when it comes to things like co-op, school policies and exam bank. It is worth mentioning that the PDEng Task Force website is <http://www.engineering.uwaterloo.ca/pdengrenewal> and we should probably see if there is anything new there but I wouldn’t worry about it too much.

Finally, I would like to share some secrets with my successor on how to be a very efficient VP-.....“something about Academics. I forget”. This is a very valuable piece of information. Once you become the VP of the UW Soup Marketing Committee, the UW Breakfast Club as well as the President of the new MIR Blueberry Promotional Task Force and the team captain of the Varsity

Jump Rope team you will find this very helpful. Oh yes, and do not forget to take 7 classes so that it looks like you care about academic stuff. First you must work on delegating as many tasks as possible to others around you. Then you have to try to ignore the massive amount of emails piling up in your mailbox hitting record numbers for unread mail. Also you should try to multitask and get all your critical work done while looking like you are doing something else and use meeting times to check your Facebook. Finally, it is key to show up fashionably late to a number of things such as meetings with the Dean – who knows how you can save 15 minutes here and there.

That is all I have for now. I hope to keep in touch with your guys in future too.

POINT VS. COUNTERPOINT

POINT

COUNTERPOINT

Are Squirrels Cute?

AMANDA LEDUC
GLITTERY NORTHERNER

Do you want to know what the cutest little rodent is? The squirrel, clearly! Although it's third cousin, the chipmunk is a close runner up. But why are squirrels so gosh darn cute? You can tame a squirrel. It's true and it takes a lot of effort, much more effort than taming a chipmunk.

See, chipmunks are like rodents with ADD and the thing constantly on their mind is, "must find food, must hide food, will do whatever to fill cheeks with food, run in circles, find food, find food...". As a result, you can tame a chipmunk in a few weeks as I have one at my cottage up in the middle-of-butt-f***-nowhere. Once you tame one, they tend to get annoying and the cute thing gets old. I'll be sitting quietly on a lounge chair on the deck reading a book and the friggin little rodent jumps on me, climbs up my arms, onto my head, then jumps down onto the book, takes a piss on the pages and continues to scurry all over me. I yell, "Chippy, F*** OFF!" and move abruptly to scare him, but he comes back until I finally feed him. Chipmunks are kinda like vacuum cleaners, they don't eat the food you give them, they inhale it then go regurgitate it elsewhere and come back within minutes to do it all again.

Squirrels on the other hand are much more timid, it takes over a month to train one of them and they never get quite as comfortable with humans as do chipmunks. My dad took the time to tame the squirrels at my cottage and they were (notice the past tense) so much fun! The squirrels came 2-3 times a day to be fed, and they always came to the same part of the deck and waited for one of us to show up. The nice thing is that the squirrel actually eats the food. The squirrel will sit on the table beside you eating food out of your hand until its

full which takes up to ten minutes. They are so cute to watch eat. They hold the peanuts kind of like a burger with adorable, dextrous little paws. When they're done, they scamper away and then leave you alone until they're hungry again in a few hours.

The only unfortunate thing about squirrels is that they are determined little buggers. Once they tried to get into our cottage, we knew they wouldn't stop so they had to be done away with (and by done away, I mean my cottage was turned into a full out shooting range for a few days as a few of my family members who I will not name ran around the cottage with guns and shot every last squirrel as I watched in horror).

Furthermore, Alex Giroux cannot appreciate the cuteness of squirrels. She is so distraught by her summertime attack by pirates while reading Twilight that she has lost all ability to find anything cute. As a result, she has decided to take her bitter wrath out on adorable squirrels. Therefore, you should not believe anything she writes because she is a bitter fourth year. There, I said. I'm going to run away now and live with squirrels because I secretly/not so secretly fear her.



UW squirrels meet for their weekly poker date

ALEX GIROUX
NO MORE SQUIRRELS FOR
ME AFTER APRIL

Ye gods I hate squirrels. Seriously. I grew up in a city that was slowly being taken over by gophers, which are not only considered nuisance animals out West, but they're also becoming immune to the strychnine that gets put down holes in a valiant but failing effort to control the vermin. So when I say squirrels are worse, believe me. It's bad.

There are two problems with the squirrels here in Waterloo. First of all, they're relatively smart. If you don't think that's true, consider this: squirrels know enough to get out of the path of a moving vehicle. A gopher? Not so much. This is the one reason that I wasn't

eaten by a swarm of gophers the last time I went home - the species may be able to survive strychnine but I'll be damned if they'll ever figure out how to avoid getting run over by a farm truck. But the squirrels HAVE. Which, if anything, tells me that gophers are really just poorly lobotomized squirrels with no tails, but that's beside the point. My point is: Squirrels are smart. Beware.

The second problem with squirrels is that unlike gophers, which are restricted to ground level unless that evolutionary lobotomy is reversed and they suddenly show up in Aero learning how to build themselves wings, squirrels can CLIMB. And not just because there are actually trees in

Ontario. No, squirrels can climb, and they know it. They also understand gravity. I know at least three people with some pretty epic squirrel attack stories involving either climbing or falling squirrels. I'll start with the most recent. I got two texts one day, one after another: "OMG i just broke the fall of a very pissed off squirrel" and then "I hope i dont need to get rabies shots again". Now, disregarding the fact that the sender had to specify "again" at the end of the second text, squirrels do get rabies. I think. For the sake of argument let's assume they do. Rabies shots are not fun. Or so I am told. Just say no kids. Another friend has a suspiciously similar story, and I'm sure they're not the only ones. That's right - squirrels will turn gravity against you - they'll lie and wait in their trees and then when you least expect it, they'll drop on you at the rate of 9.81 m/s². If you're lucky, they'll miss. If you're not, you'll end up with a very angry ill-fitting hat and a good story to tell at the ER.

The 2+1nth way that squirrels will screw with you is that they can climb on YOU. That's right, I finally figured out why people who wear baggy pants have started to tuck their cuffs into their socks. It's not to keep the pants out of the mud - it's to keep squirrels out of the pants. And yes, it has happened. Squirrels know what they want.

So the next time you see a squirrel sitting in a tree looking all cute and shit, whatever you do, don't trust it. And then run. Run far away.

I was supposed to attack my worthy opponent personally in this article, but I just can't. I'm afraid if I do she'll throw glitter at me. Besides, she likes Twilight. Why not put the book out of its misery and use it as a weapon against squirrels - throw it at them or better yet, perform a dramatic reading on the Grad House green. Just make sure you either provide some heavy duty ear protectors or a bottle of booze for any humans who might happen to come within earshot, or else they might just team up with the squirrels and do something terrible to Robert Pattinson, whatserface-the-whiny-git and Stephanie Meyer, and then what would we have to make fun of these days? I mean apart from Amanda. It's kind of a given.

Editor's note: Point Vs. Counterpoint is a space filler meant to stimulate wars on thoughtless topics. These opinions do reflect those of the authors and probably what goes on in the IW meetings every Monday too.

Fashion Fails - That's It, I Quit...Resubmit

AMANDA LEDUC
DISAPPOINTED CFO

All term, I've been desperately seeking people who can put together a decent outfit, but it seems to get harder and harder with each passing issue. This week, I believe we hit an all time low. I'm not sure if it's because we're so busy we don't have time to plan our outfits, or because we really don't give a rat's ass about how we look. Some combination of these two reasons has produced some of the most "interesting" fashion I've seen all term.

Dave: Swimsuit in March + Socks and Sneakers = FAIL

I had to ask Dave what prompted him to wear a black t-shirt, with light blue swim trunks and socks pulled up with sneakers. His response was simple, "I ran out of underwear and swim trunks have underwear built right in, so I wore swim trunks." While I'm impressed by his resourcefulness, I had to ask why

he didn't just go commando for the day, to which he explained that it was "so nobody would get a view they didn't want." Fair enough, at least he is being courteous to his fellow students when planning his wardrobe. But to top it all off, he wears socks pulled up to his shins with sneakers, also a no-no for which there is no excuse. As a result, this outfit receives a grade of "incomplete" due to its lack of actual underwear and must be resubmitted.

Eric: Camo + Urban Environment = FAIL

Why must so many of you insist on wearing camouflage pants year round? We're not in the jungle, I can see you! If you truly want to blend in, perhaps a red/brown brick pattern like that found on the exterior of every engineering building would be more suitable (please don't wear this, I WILL speak to you about it if you do). Anyway, camo is only acceptable for one week of the year (Frosh Week) plus special occasions when COSTUMES are appropriate. I know Eric thinks it's a good idea to wear camo when he has no other clean pants

left, but this is ridiculous. Perhaps I'll wear a tutu to school next time I run out of clean skirts, I wonder if that would make my point, that camo is a costume, clear? As a result, this outfit receives a grade of "weak" because it is a costume and must be resubmitted.

Thanks for trying engineering, but sometimes your abominable sense of fashion makes me want to switch to arts.

Get Classy,
Amanda
Chief Fashionista Officer



TS Recommends Somewhere Cheap



JON RADICE
THE EXPERIENCED
GUY

So after a few dates with your new fling, you've realized that things are just not the way you wanted them to be. You only met this person because you ended up at the same coffee shop every afternoon and it would have been completely rude to be so oblivious as to not know they existed. You sort of liked the way they dressed, they weren't too bad looking, and from initial conversations they didn't seem like a complete imbecile. The naivety quickly faded though and you found out that this can't go on any farther without you losing your mind. The hobbies you enjoy somehow go against their religion, they have an undying love for Twilight and they hate every single piece of entertainment you enjoy (and seriously, how could anyone hate Toy Story? They must be psychotic). How can you get rid of them without growing a pair and telling them you don't want to see them?

Take them somewhere cheap. Tell them that there are great deals going on. You have to be clever about it though; you can't just go to Taco Bell and think they'll buy it. I'm talking the kind of cheap that only comes out when you flash a huge coupon book in their face. Two can dine for \$8.99? Now we're talking! Insist to split the bill anyways. They say they want to go out to drink afterwards? You say you heard a place is doing two dollar shots tonight. Insist they pay for cover. Drink way too much, your wallet won't feel it. Start drunkenly rambling about how you save money by emptying dryers of people at your apartment complex and use the remaining time for your clothes. Cap the night off with stating that you're looking to spend a few thousand dollars on a life sized statue of Gary Busey. By now (and hopefully much earlier) they'll leave in disgust, your psychotic level of cheap was enough to do what you couldn't just say out in the open. Why do this instead of tell them that you're just not interested? Passive aggressive behaviour is so hot right now.

Daylight Savings Cause Disasters Worldwide

KATE HEYMANS
CONFUSED CLOCKMAKER

Every year lives are lost due to the transition from Daylight Saving time but this year the preliminary reports seem to show that the losses were particularly serious as essential infrastructure all over the world collapsed (the only surviving structures seem to be those engineered by Waterloo graduates). Witnesses in Iran report a massive wipe-out of the internet and reports show that most of northern Canada was without running water or electricity causing outrage among the native caribou. One person even had trouble getting cell-phone signal.

Airports and planes were in chaos everywhere as pilots attempted to match their schedules. Several passenger planes originally headed for Heathrow International Airport in London had to turn around after

spending two hours in circling the airport, waiting for permission to land, and were forced to land in Hawaii. Luckily most of the passengers seemed not to mind.

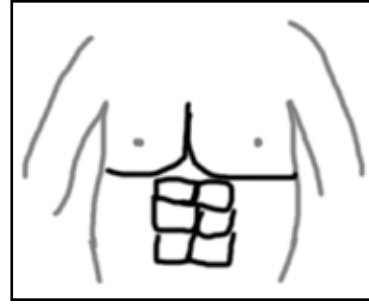
Here in Waterloo even the geese were having trouble making sense of the missing hour. Witnesses report surprisingly mild behaviour and lack of honking in the early hours of Sunday but a correspondent also told us that they later began dive-bombing students. In the lecture halls on Monday, bleary-eyed students collapsed from caffeine-deprivation since the Tim Hortons on campus failed to open on time and many lectures were cancelled due to the absence of instructors and professors who simply did not get enough sleep. In a great humanitarian wave students mobilised to provide food and shelter to high school students and their parents on Tuesday (also allowing the university to showcase its geese, lazars and PDEng program).

How to Create Fake Abs



LISA TONG
REALISTIC FITNESS
ADVISOR

Show off your chiselled body to your friends and family without even trying! You don't even need a proper diet to do this. All you need is a permanent marker, a mirror and some time. First, you need to start a few days in advance of showing off. Stand in front of your mirror, decide where your abs



will be, and draw lines with a permanent marker using the guideline picture. Make sure you follow the black lines. You can also add pecs too, if you want to make it more realistic, because the two go together. Try not to make any mistakes, it will ruin the way your abs look. Because I said everyone is different, you can customize the way your abs look too! Once you're done wash off a bit of the permanent marker so it is slightly faded and your abs and pecs look more realistic. Now you're done! Go out and show off your amazing body!

Dean to Find \$20 Million

ALREADY BROKE STUDENTS VARYING LEVELS OF DEBT

Michael New:

We turn UW into a hunting range and then charge hunters lots of money to come in and shoot all our geese and squirrels. An additional charge can be added for student disguises so that the hunters can blend in with the crowd and sneak up on their prey. Hunters may even purchase fake Watcards (for only 90% of the actual cost) so that if the geese ask for ID the hunters will be prepared. We make tons of money and get rid of our geese and squirrel problem at the same time! Now that's optimization!

Kate Heymans:

So we need more money. Well let's turn towards the resource most commonly available on campus: students!!! Well yes, look around you, what do you see? Students, students and more students! You might wonder how students can be turned into a viable income but instead of looking at them as people start focusing on their biological make-up... Not sure where this is going? Focus on what students produce, there's lots of stuff to be harvested; blood, organs, even semen! So now that you know what to do, there really should no longer be a budget deficit.

Jon Radice:

Reduce the amount of money in the

budget that is being dumped into administration when they have no clear goals or reasons as to why they are receiving so much more money for the same administration we've had this whole time. Oh... you wanted a funny answer? Um, Nude Rodeo Fundraiser?

Mikayla Micomonaco

A way to raise money is to offer students, staff, faculty, alumni and randoms off the street a unique way to help support the construction of our new engineering buildings. They can purchase a brick, which will be carefully inscribed with their name – on the bottom, where nobody will ever see it again. Those who purchase this lasting reminder of their generosity can be rest assured that the cement between the bricks will forever be pressed into the shape of their name, where it is incised on the brick's bottom, and will never forget their generous contribution to the future of engineering at UW.

Michelle Croal

The Dean should look in all the typical places where people store their money: piggy banks, under mattresses, in the toilet water tank, pockets of all pants, the cash register of the CnD, hidden in hollow textbooks.... By mandating all students to search even under the lint in their dryers, some spare coins should be scrounged up.

THE TIN TRIBUNAL

Whispering Vocal Cords, 1B Acapella Growl

“What will you do if you spot an Imprint spy in an IW meeting”



Michelle Croal
Domo Arigato
“Kiaaaaaaaah”

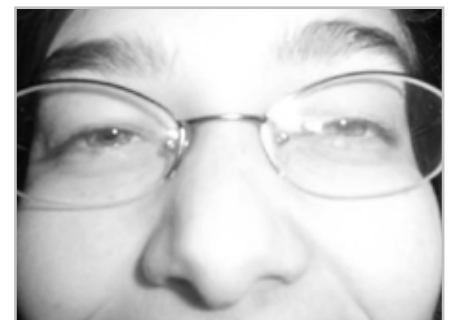


Roy Lee
2014! Gucci
“Point out into
the hallway
and yell ‘Plastic
Bag’”

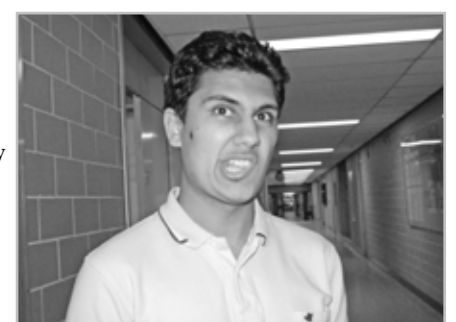


Amrita Yasin
Angry Distributor
“Teach them the difference
between IM and IW”

**Mikayla
Micomonaco**
I Like to Creep
“Glare at them
ominously”



Yousif Al-Khder
Layout Patriarch
“Torture them by
making them do
the borders for
IW”



ENGINEERING SOCIETY EXECUTIVE REPORTS

Outgoing WEEF Report



JAY SHAH
OUTGOING WEEF
DIRECTOR

By the time this publication hits its stands, WEEF's 20 year celebrations will have occurred (March 22nd). I hope you managed to make it to the CPH Foyer sometime throughout the day to see a showcase of every single purchase ever made by WEEF. It's really quite astonishing to see how much of an impact WEEF has had, and will continue to have! We also had free give-aways like t-shirts, buttons and cake! For those that may have missed the details, I'll give a quick summary:

20 Year Funding Summary	
CHEMICAL	\$354 410
CIVIL & ENVIRONMENTAL	\$404 766
ELECTRICAL & COMPUTER	\$571 383
MECHANICAL & MECHATRONICS	\$402 142
SYSTEMS DESIGN	\$273 872
NANOTECHNOLOGY	\$30 253
ARCHITECTURE	\$123 365
STUDENT TEAMS	\$939 575
STUDENT MACHINE SHOP	\$141 822
ENGINEERING COMPUTING	\$124 295
E5 - STUDENT DESIGN CENTRE	\$1 000 000
TOTAL	\$4 365 883

WEEF's tri-annual Board of Directors meeting will be occurring on March 30th to finalize the funding decisions for this term as well as to discuss issues pertaining to the long term growth and health of WEEF. We will also make the WEEF elections that occurred through EngSoc official at this meeting.

Alas, this is the last WEEF article I

will be writing as the Director, the time has come to pass the reins onto the new WEEF Director that you voted for, Praveen Arichandran. I'd like to extend my personal congratulations to both Alexa and Praveen for running in the WEEF Director elections; they are both Assistant Directors at the moment and from my experiences with them I know they are both extremely capable and engaged people. It was really nice not having to worry about the election, because I knew that regardless to who won, WEEF would be in good hands! So, congrats on some great campaigning, and congrats to Praveen! He will be your WEEF 'A' Stream Director for the next 16 months. I look forward to doing my transition meetings and reports with him.

My term as a director would have been infinitely more challenging without the help of two people who I'd like to take a moment to thank.

The first is, Mary Bland for being the strongest pillar of support that I know, any question I've ever had, Mary has had the answer, anything that I needed help on you were always willing to assist. You Rock Mary!

And second, Robin Jardin from the Dean's Office, whose clear passion for student interactions and commitment to engaging students with the Dean has given me a new inspiration for student governance. She's also been a tremendous help with a lot of the logistics of WEEF.

And finally, I'd like to thank my WEEF Assistant Directors this term, Alexa Baker, Praveen Arichandran and Danzhao Liu for making this term run ever so smoothly.

Best of luck on finals, and if you're feeling lonely, just remember WEEF loves you. Questions, comments or suggestions are always welcome - email me Praveen at weef@engmail

Senator Report



JAY SHAH
SENATOR

By the time this issue hits the stand, the March Senate meeting will have occurred (Mar. 22nd). The budget continues to be the main focus; we finally have a date established (March 25nd) for when the Ontario budget will come out, the release of the provincial budget is critical in university budgeting as the level of grants for the 2010/11 year won't be known till the provincial policy makers tell us.

In the Senate Finance Committee meeting, President David Johnston said that it is a 'rosy' outlook to anticipate that we will get the same level of funding as previous years in terms of government grants. The proposed budget for the 2010/11 year has a built-in \$2.8 million structural deficit (structural meaning that they made the budget with this \$2.8 deficit in mind...not that the \$2.8 million deficit comes from structures like buildings). Top administrators have assured the Board of Governors that by the end of fiscal 2010/11 they feel they can cut this deficit down to essentially zero. All Deans are required to cut their Faculty budgets by 3.5%. Based on brief comments from several Deans in attendance, it seems this 3.5% will be achieved by postponing hiring and making do with the resources we have now...even if that is not ideal. There is a general consensus that the 3.5% cut can be absorbed without layoffs or unpaid vacations. Dean Sedra was not in attendance so at this time I cannot provide details on how our Faculty will deal with the 3.5% cut.

Some interesting notes about the preliminary 2010/11 budget:

1) The cost of insurance to the University will increase by 25% compared with last year. On first thought, it would seem this is because

of new buildings; however Dennis Huber (VP Admin & Finance) said that the majority of this increase is actually from significant increase in the insurance premiums - a reflection on insurance industry trends across the country.

2) The 'International Fund' that is used to fund activities such as UAE campus, or partnerships with campuses in other parts of the globe will see an increase of 145%. This is a reflection on the Universities' push to attract more international students to assist with budget problems. (International Students pay more)

3) The utility costs (electricity, heating, etc.) are projected to increase by 15% for two reasons. The first is the sheer volume of new buildings coming that need power, and secondly the rates are projected to rise. An interesting note: a portion of our utilities are bought on the open market, while the rest is purchased at pre-negotiated fixed prices.

4) Despite the budget difficulties, the Student Support category of the budget will see a 3.4% increase, reaffirming UW's commitment to 'leave no deserving student behind.' It is worthy to note however, that almost 1/2 of this increase is to support international graduate students; this reflects two of the Universities goals, one being to get more international students and the other to significantly grow its graduate program population.

The next few weeks will be critical in the construction of the budget, as everything needs to be finalized and locked down before the end of April. The new fiscal year starts in May.

Look for an extensive update in the first issue of the spring term for more details. Until then, if you have any questions or comments, please feel free to email me at senate@engmail

Good luck on finals! And to those lucky 2010's, congratulations on finishing!

Incoming WEEF Report



PRAVEEN ARICHANDRAN
INCOMING WEEF
DIRECTOR

The Waterloo Engineering Endowment Foundation has phenomenal potential and as you know, I'm very excited to get to work and plan for the future of WEEF as your WEEF Director. First of all, I'd like to take this opportunity to thank you all so much for your support and enthusiasm on the campaign trail. It meant a lot and I really appreciate it. Kudos to Alexa Baker for running a solid campaign. Our EngSoc executive

team is also looking very strong. Congratulations, Tim, Leah, Sean, and Marc on the great platforms and campaigns. I'm looking forward to working with you all as well as my off-stream WEEF counterpart, Graham Stonebridge over the next 16 months.

The future of WEEF is looking brighter than ever. Since its inception in 1990, WEEF has definitely made its mark on Engineering at the University of Waterloo. As you are well aware by now following the 20th birthday festivities, the last 20 years have resulted in total contributions of about \$4.4 million and a capital fund sitting at \$8.5 million. Most recently, WEEF sparked a total of \$4 million in donations to the construc-

tion of E5 through its own donation of \$1 million. Today, it's time for us to create a plan and make decisions for the future of UW Engineering.

My platform included some very ambitious goals. Now it's time for me to work with you to make these goals a reality. With your input and support, over the next 16 months I plan on taking on three key initiatives. I would like to implement employer contribution forms as a source of diversified funding. This will position us well for stronger growth in the future. I also plan on creating a UW Endowment Council to pursue high-impact interfaculty initiatives and unite all of the endowments on campus.

The last main goal is to increase promotions through a revamped advertising and awareness campaign to instill a stronger sense of WEEF pride within Engineering.

I'm very happy to be your WEEF Director for the next 16 months. With all of the new initiatives that will be pursued, there are plenty of opportunities to get involved. If anything above interests you, if you have new ideas or comments or if you are just looking to get involved, I'd love to hear from you. Feel free to talk to me in person, via Facebook or email me at parichan@uwaterloo.

Thank you once again and good luck on your finals!



Incoming A-Soc Exec are given a warm welcome at TalEng

profQuotes

"If you look in lower-level math textbooks, for example a textbook for business students..."

-D. Harnsworth, MATH 119

"If you want a grow-op in your basement and don't want to be noticed, use only red and blue lights."

-Kyle Daun, ME 353

"I still remember the time I got my first coke in university."

-L. Smith, ECON 102

"Please don't tell me that assignment 5 is the most interesting thing in your life, and if it is, get a life"

-M. Fowler, CHE 331

"Prof (writes): 'Indicates whore in memory the block came from'"

Student: "Sir, you might want to fix your 'e' there."

Prof: "Oh, where? Oh, dirty bits." -

-A. Morton, ECE 222

"I am told that it [MATLAB] can do other important things too."

-B. Epling, CHE 311

What's Up with all the Mud-slinging?



**MICHELLE
CROAL**
3B CHEMICAL

I'll start by saying what's to follow is purely my opinion and may not reflect that of *The Iron Warrior*, the Engineering Society or the student body at large: since when is EngSoc such a raging political beast?

At the last meeting (two weeks ago), the main item on the agenda was ratifying acclaimed candidates for the executive elections. This is done to essentially have a vote of confidence in the candidates, because even though a position is acclaimed, it can still go unfilled.

There were a few other items from executive reports that caused a lot of aggravation from students in the council. I was fairly shocked to hear the amount of blatant blame throwing, name-calling and trap questions that were asked by members of the council directed to a particular individual. Now, I do not

know to what extent this person has or has not filled his role on the executive committee but seriously? I recognize that if certain problems exist, and these problems cannot be dealt with by the immediate committee, then they need to be brought to the public forum. However, the sheer number of these comments and the unprofessional manner in which they were presented was astounding. We claim as a society that we want to present a professional image to the University, industry and the community, but what about our image to our peers and each other? Some common respect and good manners seemed to be lacking at this particular meeting. The EngSoc meetings are a great place to get involved and find out what's going on in the engineering community, but lately it seems like anyone can get away with saying anything they want. I'm a strong believer in discussion, but not when the discussion takes more of a form of personal attacks than the issues facing the student body.

Additionally, the questions and discussion facing a particular exec candidate also seemed disproportionately long, targeted and sneaky

when compared to questions posed to other candidates. Maybe I'm naive or idealistic about the way democracy works, but I thought this was to be more than a high school student council election. I felt that this particular candidate had a fair amount of experience that would be relevant to the position, but perhaps his past history and personal beliefs about certain topics are too different from the opinions of the student body (as represented by those present in the room) for students to accept that he will truly represent them well. This person has tried to run for an executive position in the past and did not succeed, which I think shows a lot about him. It would've been so easy to give up on EngSoc in the face of challenges and opposition, but this person has remained involved and seems to want to make an impact.

EngSoc has a reputation of being cliquy. It's unfortunate, but something that I've observed in my time here. Yes, it is easy to get involved, but there's still a huge intimidation barrier that makes it hard to be really in with the "in crowd". It seems like when a new per-

son comes up from nowhere, with a different perspective and perhaps with entirely different goals, the existing system can put up an extreme amount of resistance. Diversity does not make it easier to work with people, in fact it makes it harder. One of the questions posed to the candidates was "How are you going to represent students who do not actively participate in EngSoc?". Well, I'd like to pose that question to the incoming exec (once elected) and to the council in general. Maybe changing the types of events might help EngSoc appeal to more students, but I think that the group should only try to broaden their horizons if they are then willing to honestly welcome those newcomers that attend.

Anyway, I know many of the people involved in EngSoc as friends and acquaintances and I will vouch for their characters, achievements and extreme dedication to the services, events and spirit of Waterloo Engineering. I just wanted to point out a dangerous group mentality that seems to be arising and I challenge everyone to change these attitudes.

I Dared You to be Responsible, You Didn't Accept.

ANONYMOUS

There are 3176 Engineering Undergrads on stream this term. How many of you voted? Take a guess. Ask yourself, did you vote? Then ask the next seven people around you. Surely, one of them voted! That's right, of 3176 people eligible to vote, ~476 did, a measly, disappointing 15%.

Why does this happen? Why do people fail to vote? I can't comprehend it, I don't get it! So I've tried my darn best to identify all the possible reasons here:

POINT: People feel EngSoc doesn't serve or represent them. People assume that EngSoc is composed of a bunch of drunken hoeligan students that are up to no good.

COUNTER: The Engineering Society is

the strongest and the most established group of students that has the ability to make a difference in the direction of our Faculty. Yeah, it can't change the world with a snap, but EngSoc's purpose is to know the right people to talk to, in order to instill positive change. **ANYONE who has something to say about PDEng** should take a heavily active interest in who our VPEd might be! They are the cornerstones of student voice in the entire PDEng renewal process. **ANYONE who writes exams** should know that the reason you have accommodations for back to back exams are because EngSoc representatives fought to keep them! **ANYONE who has filled out a course critique or checked how good a prof is using the online course critique data repository....**

guess who runs that? EngSoc! Guess who represents you on the Canadian Engineering landscape? Your EngSoc VPEX! Guess who interacts with the licensing body that you might one day want to get your P.Eng from? EngSoc!

POINT: People assume that EngSoc is all one big 'clique'

COUNTER: It's a completely democratic election process that is overseen by FEDS... I don't see how it's a clique. If you think it's all about drinking beer, well you're plain wrong, as the EngSoc President last term didn't drink, period.

POINT: People assume that their vote is insignificant

COUNTER: Imagine that if you and four of your friends voted, you would have increased the # of students who voted by an entire percent. If you got your class to vote (assuming ~80 people), the # of people

that voted would go up by 17%! You make a difference if you so choose!

POINT: People are too focused on the other aspects of their life to care (academics, extracurricular...)

COUNTER: I can guarantee that something in every UW Engineering Undergrad's life has been dependant on the smooth and efficient operation of EngSoc ... all those things that are keeping you busy...well, EngSoc could help in some way if we vote the best people we have into the right positions. Just look at the exam bank. Imagine if that disappeared? Depending on who we elect, that might just happen.

I dared you to vote in the last *Iron Warrior*...you clearly didn't accept my challenge.

Maybe next elections we can break our all time record of ~30%...

You get out of this world what you put in.

WATERLOO'S ENGINEERING JAZZ BAND:
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End of Term
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<i>Date</i>	Sunday, March 28th, 2010
<i>Time</i>	5:00PM
<i>Location</i>	South Campus Hall Festival Room
<i>Tickets</i>	\$10 at the Engineering Society Office

ALL PROCEEDS GO TO RIDE TO CONQUER CANCER
THIS IS A LICENSED AND ALL AGES EVENT

Healthy Food Habits



LISA TONG
3B CHEMICAL

Before you reach for that bag of chips or another cookie, read this. Food is definitely fuel and power for your body. You will always need it and even more when you choose to work out. There are obviously the good and bad foods, bad foods being junk: highly processed foods (e.g. Jamaican patties), high sugar (e.g. Coke), and fast foods (e.g. pizza, Chinese takeout). I'm not saying that you have to get rid of anything that is essentially 'junk', but making smarter food choices will let you enjoy food, leaving you filled than filling you out. I just want you to realize this: you are **ALLOWED** to eat 'junk' food in moderation, meaning that you should choose to eat healthier food first.

Let's talk about carbohydrates.

Carbohydrates

Simple Carbohydrates (Sugar): There are two types of sugar: glucose and fructose. Glucose is the sugar form that your body needs and is the primary source of energy for your body. This also means that this sugar would easily get absorbed in your body, spiking your sugar levels. Fructose however needs to go through your intestinal tract and get converted into glucose before it can be used. Fructose would not spike your sugar level. Having said that all that sugar is energy. Your body needs a bit of

sugar to help you throughout your day. When you eat too much of it, your body would take this extra sugar and store it as fat. In case you were stuck in the middle of a forest without food the body will then burn the stored fat to provide energy. So, each gram of sugar contains about 4 calories. That seems like a small number, but it adds up. For example, Coke in a can contains about 39 grams of sugar, which is 175.5 calories.

Complex Carbohydrates (Starch and Fibre): These complex carbohydrates are composed of more than two sugar molecules. Starch is usually found in plant type foods such as grains, potatoes, root vegetables, and legumes. The sugar molecules in starch are held by weak chemical bonds and easily break into glucose in your body, spiking sugar levels. Fibre on the other hand is non digestible and composed of many sugar molecules. It does not have an effect on your blood sugar levels because your body does not have the enzymes to break it down. The benefit to fibre is that it slows down the absorption of starch and leaves you feeling full longer. Fibre is found in vegetables, fruits, and grains.

To conclude my column for the term, make sure you don't restrict your diet to only certain types of food. You are allowed to eat whatever you like, but make sure that if it's a food you categorize as junk you eat it in moderation. Try to eat food from every food group prepared from fresh ingredients. Eat until you're satisfied, not until you're stuffed.

Happy eating and good luck.

POINT VS. COUNTERPOINT

POINT

COUNTERPOINT

Should the Ontario Government Increase International Enrollment?

AMRITA YASIN
3B CHEMICAL

Some of you politically interested beings might be aware that Ontario Government has proposed a new plan which among other reformations emphasizes the expansion of Ontario post-secondary schools. One of the elements which has been the topic of much debate is the goal of increasing international student enrolment by 50%. Most of the responses that I have encountered have been negative and the majority is considering this goal as a mere means to improving the financial situation of the schools and the government. I, however see absolutely no problem with this increase.

First of all, Canada is a very multicultural country. As co-op students many of us have worked in varied environments and seen the cultural diversity in workplaces. High schools, depending on the demographics they are located in typically have majority of one particular ethnicity. In such circumstances, universities should provide an environment for people from different backgrounds to come together, work alongside each other and learn each others strengths and weaknesses. Increasing international enrolment will help achieve this goal; by careful planning the government can ensure that international students aren't concentrated in a particular region or university and that schools across Canada foster a healthy growing environment for students.

Secondly, Federal and provincial governments spend millions of dollars yearly to attract immigrants from different countries. A lot of the international students who come to Canada for undergraduate studies try to find jobs in Canada and reside here permanently. By increasing international enrolment, the effort and money spent on that front can be mitigated. Students start university at around 18 years – an age where personality and values are still developing and a person is more adaptable to life changes. On the other hand, people who immigrate in later parts of their lives find it more difficult to assimilate in a new society. The government has to spend more effort in terms of initiatives, workshops, and new immigrant sessions to help the transition. Increasing international enrolment will enable people who eventually plan on coming here make their transition at an earlier stage and ease the whole process of adjustment in a new society.

UW started its first satellite campus in UAE last fall. One of the incentives behind this initiative was to increase UW presence on the international front, as some US universities have successfully established satellite campuses. Similarly increasing international enrolment is a way to enhance our presence in the international community.

As a developed nation we are involved in many initiatives associated with using our technical knowledge to help others around the world in need e.g. Engineers Without Borders student volunteers work in Africa to solve problems faced by the locals there. In this context, a lot of concerns are raised as we view things from a bird's eye view and seek solutions that fit our mentality well. Having more international students will bring us closer to people from different part of the world and enable us to understand their problems as they see them and thus find better solutions together.

Even after these arguments, a lot of you might still not be convinced because I haven't touched the Achilles' heel in this entire debate, i.e. Ontario government is

doing this to increase the inflow of money. Let's approach this issue from another angle: education in a particular program in a particular university costs some amount. A portion of this fee is subsidized by the government while the international students pay the entire sum out of their pockets. A mere comparison of the numbers does portray the international students on the unfair end but the fact is that education of local students is subsidized because they live here and pay taxes to their government. Subsidizing international students' education with the government's money which it gets from resident taxes is unfair to Canadian residents. If some one wants to get a degree from University of Waterloo and is paying whatever that education is offered for, what is the problem? The tuition fees increase almost on a yearly basis and students moan and complain about it but that increase is never seen as an ethical issue. UW international student percentage has increased from almost zero to eight percent in the past seven years. The most obvious conclusion from this statement is that these people are willing to spend the money to get an education from UW, have the learning experience of living away from home and learn to handle their problems by themselves. Increasing the quota for international students will just enable more students overseas to live this experience. No amount of marketing and advertisement can lure international students to Ontario schools unless they want to come here.

On a similar note, the Throne speech also said that "every qualified Ontarian who wants to go to college or university will find a place." This rules out the argument that increasing the quota for international students will deprive local residents from attending universities/colleges.

Editor's Note:

Point Vs. Counterpoint is a feature meant to stimulate discussion on thought-provoking topics. The views and opinions expressed here do not necessarily reflect those of the authors, *The Iron Warrior*, or the Engineering Society.

WU XIAOYU
2A ELECTRICAL

Being a former international student myself (I now hold a Canadian PR), I was taken aback when I heard that in the recent Throne speech, the Ontario Government is planning to increase the intake of international students by 50% in the "new five-year plan" for education. Of course, this seems to imply good news for me, as it no doubt suggests that students studying halfway around the globe will enjoy an increase in the level of support available to them. I am, however, concerned about the rapidity of such an influx on an education system that already has issues to deal with, and remain contemplative with regards to this proposal to raise the quota on the international student intake.

The reason I used "quota" when referring to the student intake is due to the fact that care must be taken to select the criteria of evaluation when implementing a new educational policy. In another section of the speech, it was mentioned that our current system has "raised test scores [and] increased the graduation rate" of high schools. Yes, try telling that to our Physics professors as they attempt to explain basic principles requiring prior knowledge of integration to increasing numbers of students who have no knowledge of it at all.

That is the risk that a focus on statistics-based rhetoric will bring – if you want to achieve quantitative goals, certain qualitative markers will have to be sacrificed. I am sure that is not intended here, and that we want an increase in numbers of international students while ensuring that they contribute to the Ontario system as proposed. I am sure the Ministry of Education also did not intend to cut down university syllabuses due to high-school graduates not being able to understand a concept they removed from high school, but hey, a quota needs to be met right?

Another point of concern is the motivation behind such a proposal. It may be noted that the quality of education has little to do with it. International students are expected to "strengthen our schools and create more Ontario jobs". What can be seen here is that the Ontario govern-

ment is leaning in the direction of vastly promoting educational tourism – where the product (diplomas, learning lifestyle etc) are promoted aggressively abroad to people willing to spend their money here in Ontario.

In a 2006 study performed by Roslyn Kunin & Associates, a Canadian economic analyst consultancy, it was noted that in British Columbia, the vast majority of the jobs directly created as a result of rising international student numbers were in the government sector. Additionally, the retail sector (think your local H&M) benefited the most indirectly due to increased student numbers. Education-related employment, however, was a mere side note compared with other economic gains.

This is worrisome, as Ontario's new goal for post-secondary education puts such a heavy focus on educational tourism. The international ranking of Canadian higher education has already been deteriorating over the past few years. Will we be sacrificing the quality of Ontario's education due to economic incentives?

A more subtle risk of raising the ratio of international students is the discrimination that might be perceived by local students when competing with their potentially academically superior international counterparts. After all, that's one of the arguments advocates of increasing international student numbers use; that local students are motivated to become better due to increased competition. However, it should be noted that perceptions of being inferior in anyway can lead to increases in the feeling of being socially-rejected. This may very well lead to a decline in the local students' self-evaluation. In an academic structure that wishes to create the "builders, dreamers and innovators of the future", this potential for social discontent seems to be out of place.

I am fearful that if a quantitative and economically motivated approach is utilized to attempt to become a global leader in education, there will be new problems created in addition to the current ones, and may lay the seed for a fragmented and ineffective education system - a system that I did not subscribe to when I first came to Canada.

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Are You Familiar with External Engineering Organizations?

LEAH ALLEN
2A CHEMICAL

Do you know what the acronyms ESSCO and CFES stand for? If you're thinking no, read on and allow me to inform you. These organizations are the heart of the engineering societies nationally and provincially and are the voice of all engineering students.

ESSCO stands for Engineering Student Societies' Council of Ontario and it represents 20,000+ engineering students and fifteen societies that are currently associated with ESSCO provincially, all the way from Lakehead University to the University of Windsor. ESSCO is primarily run by the ESSCO executives, a council which is comprised of the VP External representatives from each school, and a number of directorship positions. Currently in the executive positions representing University of Waterloo are Spencer McEwan, who holds the position of President, and Alesia Danelon, who holds the Vice President

Services position.

So what does ESSCO really do? ESSCO is mainly a communication link between all fifteen societies, PEO, the Ontario Society of Professional Engineers and CODE (Council of Ontario Deans of Engineering). They are involved in many initiatives such as National Engineering Week, improving engineering education, supporting Women in Engineering and much more! ESSCO also holds a number of conferences throughout the year which are a great opportunity for the members to obtain skills and information that can benefit their engineering society, as well as their own professional progress. The conferences that are held by ESSCO each year are the PM (Presidents Meeting), PEO-SC (Professional Engineers of Ontario Student Conference), FYIC (First Year Integration Conference) and AGM (Annual General Meeting).

CFES stands for the Canadian Federation of Engineering Students. It is much like ESSCO, but on a national level be-

cause it facilitates the communication and exchange of information between member societies across Canada. CFES is the voice of every engineering student nationally as it provides representation on issues relevant to engineering students in Canada, and ensures that the engineering profession in Canada continues to grow. Currently CFES runs four major activities throughout the year which include CFES Congress, the Canadian Engineering Competition (CEC), Complementary Education Courses, and also issues a project magazine known as Promag.

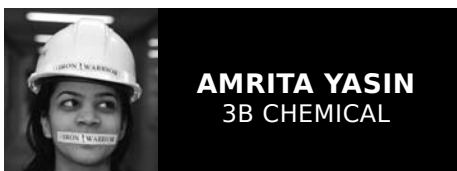
CFES and ESSCO provide numerous opportunities for students to become more involved with these national and provincial societies. Currently Waterloo Engineering faculty and EngSoc are represented at several conferences yearly. The wonderful thing about being in engineering at University of Waterloo is that we have two societies, A-Soc and B-Soc, meaning that we have double the representation at each of these conferences. Below is a list of these

conferences and the number of delegates sent to each event by each society.

- ESSCO AGM (May/June) – 2 to 3 delegates, VP External and President
- ESSCO PM (Sept/Oct) - only VP External and President
- NCWIE (Nov) – 3 to 4 delegates and VP External
- PEO-SC (Nov) – 3 to 4 delegates and VP External
- ESSCO FYIC (Feb) – 3 to 4 delegates and VP External
- CFES Congress (Jan) – 2 to 3 delegates and VP External and President
- CFES PM (Sept/Oct) – VP External

The main point of this article is for the average engineering student to realize that CFES and ESSCO represent YOU! If you wish to get more involved please keep your eye open for opportunities to apply to be a delegate and attend these conferences. Also, please visit the ESSCO website at <http://www.essco.ca/> and the CFES website at <http://www.cfes.ca/> to get more information on these organizations.

Bus Push Raises \$5000 For Heart & Stroke Foundation



AMRITA YASIN
3B CHEMICAL

March 13, 2010 probably saw the hottest Bus Push event of all times. On a rather very pleasant morning for March, 46 enthusiastic UW engineers students gathered in the CPH foyer ready to pull a bus from UW campus down to Kitchener market square for the 33rd time.

For those of you who have (surprisingly) never heard of Bus Push, it is an annual charity event organized by EngSoc to raise

donations for organizations such as Sleeping Children Around the World, MS Society, and the Big Brothers and Big Sisters of the KW Area. This year the proceedings were donated to the Heart & Stroke Foundation.

Sometime in remote history, students used to push the bus, but due to safety concerns a rope is now attached to the front of the bus and it is pulled by the students. More students can help move the bus by just holding on to the rope and take breaks if desired.

So in our brightly coloured yellow T-shirts, after having coffee and doughnuts (hmm sugar) as our breakfast provided

by the awesome Bus Push directors, we waited for the bus to arrive. Unfortunately, GRT sent one of the new busses without anything on the front to attach a rope to. The right bus finally came, with a GRT van and a police car as our escorts, and the fun began. While students held on to the rope using all their might (and sometimes with a bit of slack in the rope), spirits were kept high by cheering for Waterloo, singing the Engineering hymn and the Magic Bus song. We were well received by the pedestrians and the traffic who smiled and waved and donated graciously to the volunteers collecting donations. As the physical activity warmed the body, students threw their jackets and coats in the bus and volunteered to distribute water bottles every now and then.

To make the event even more epic The Tool made an appearance in Kitchener as we passed Victoria Street and we faithfully followed the Tool Bearers till our destination. After successfully pulling the bus over a

stretch of 7 km in an hour and a half, we were given a ride back by the same bus to the University Plaza. Having satisfied our hunger at The Grill we headed back to POETS where prizes provided by the Heart & Stroke foundation were distributed.

Although my muscles refused to move



Amrita Yasin

UW Engineering students pull the bus behind the Tool in Kitchener downtown

for the rest of the day, knowing that I contributed to the \$5062.58 raised through this event for a good cause makes every effort worthwhile.

Good Times at the Semi-Formal

ROY LEE
1B NANOTECHNOLOGY

Semi formal was a huge success! The night was filled with dancing, delicious desserts and reminiscing about old times! The desserts were a major hit - who knew that free food attracted university students? There was a point where no one was on the dance floor and everyone was mingling over mini strudels and cheese. Albeit the night started off slowly, it turned out to be amazing. People dressed up for the theme and the winners

for the best costumes were well deserved. From kimonos to Ukrainian dancers the costumes were plentiful. One "lad" even dressed as a Scot, with a kilt and tie to finish off the look.

However the night would not be complete without "Don't Stop Believing" by Journey, except the DJ didn't have it. So we promptly made him YouTube it and it didn't matter that there was no earthshaking bass and no outstanding sound quality. The night simply ended with YouTubing a good song and chilling with good people and having a grand ol' time.



IW staff is all smiles at the dashing event

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One Waterloo Puts On One Awesome Show!



FARZI YUSUFALI
1B NANOTECHNOLOGY

On a free Thursday evening, (well as free as an engineering student can be), venturing outside the sacred halls of engineering to experience the rest of Waterloo is a fine way to use up disposable time. On one particular Thursday (being March 11th), One Waterloo hosted the Cultural Caravan as the grand finale of the week-long International Celebrations. The show boasted great music, dancing, singing and spoken word recitals. Many students, including some from engineering, participated in this lively event.

The event (which took place in the SLC Great Hall) was packed with stalls of foods and prizes to promote the various clubs/groups on campus. While the booths were lined along the periphery of the hall, the centre of the hall was filled with hundreds of chairs; which proved inadequate given the massive crowd. The emcees of the night presented each group with enthusiasm and interacted with the audience of the

show; the ambiance was such that random audience members jumped on stage to introduce acts they were passionate about.

Within the first five minutes of the show, the atmosphere was electric! Everyone who came out to support their peers was loud, adoring and eager to see the various acts. A special mention must be made to the Middle Eastern posse that was by far the loudest when the group SFPR (Students for Palestinian Rights), took to the stage for a

traditional dance piece.

The dances (being the majority of performances in the show) were incredible with every act offering something unique to the success of the show. The dance presented by LASA (Latin America Student Association) was expertly choreographed to ooze heat and spice while WATSA (Waterloo Tamil Students Associations) performed a rhythmic mix of South Asian dance styles.



Farzi Yusufali

SFPR rehearses for their traditional dance before performing on the stage

Many exceptional dancers, singers, violinists and bands also made lasting impressions on the audience with their energy. Many of the acts got the audience to stand up, sing along and clap to the music as they performed. A notable highlight was Andrew the violinist, who performed a catchy Irish folk tune that immediately got the audience screaming and clapping along with the song.

Personally, my favourite performances included the Michael Jackson tribute number by UW BASE (Black Association for Student Expression), the UW ISA (Israeli Students Associations) breath-taking mix of belly dancing, Bollywood and classical dance styles, and the skit/dance act performed by ACS (Association of Caribbean Students).

The most anticipated event during International Celebrations was deemed a huge success. Not only were the groups' pieces fantastic, the ambiance created by friends, club members and other UW students made the show all the more exciting. The entire week helped UW students recognize and enjoy the diverse backgrounds that their peers had to offer. One Waterloo, you've really outdone yourselves with this one!

Pi Lovers Wait in Irrationally Long Lines



ALISON LEE
1B NANOTECHNOLOGY

On March 15, hoards of pi lovers crowded MC halls at 1:59pm to claim their free pie for ($\pi+0.01$) Day. There was pi merchandise, pi digit battles, high-pi's all around, and as I write this article, I stand in the middle of it all (possibly participating). The smell of pie overpowered the smell of pi lovers crowding around tables of caramel apple, pecan, key lime, mincemeat, rhubarb, chocolate, lemon meringue, raspberry crumble, and other deli-

ciously free slices of pie.

Free pie is UW MathSoc's traditional way to celebrate the transcendental phenomenon of pi, aka 3.14, or for you pi-hards, 3.141592653589793...I'll stop. The 0.01 correction factor is because the real Pi Day, March 14, fell on a Sunday this year. MathSoc bought 100 pies, sectioned into 8, giving out 800 slices in total, each with an area of $\frac{1}{8}\pi r^2$ and a crust length of $\frac{1}{8}\pi r$. They vanished in a short period of time, so I can't imagine how unreal (or not) the highly anticipated 2015 Pi Day (3/14/15) will be.

Although there was no official EngSoc Pi Day event this year, I'm sure we all celebrated in the pi-vacy of our own homes.

But does that make accepting free pie from math students uncool? Don't be irrational—it's quite the opposite, a complete 180° (π rad). Pies aren't for squares; they're about coming full circle and loving everyone. I took my role as an unofficial self-appointed Engineering-Math Ambassador so seriously that I lined up twice.

I wasn't the only engineer in line; everyone knows where to find free food. "Mmm,

this pie transcends my expectations!" exclaimed Kevin Joseph, a nano student and pi-hard fan of key lime pie. "The pied piper called me here," explained Michael Leung, a fellow classmate. "Mmm*pi*mgh*chew*m nghhn," added an onlooker.

I've now exhausted my bank of pi puns, so until the next Pi Day rolls around, keep it real. (p.s. article word count: 314)

Engplay Goes Impromptu

IOANA CRAICIU
1B NANOTECHNOLOGY

I'd like to say that Engplay was a laboriously thought out endeavour this term; that the directors put a lot of thought into the script-selection; that us producers tirelessly worked to design backdrops and props; that the actors rehearsed to the point where they silently recited lines all day, every day. But I won't, because, well, we didn't. Due to an unfortunate alignment of the stars, no one was available to direct the play for the first half of the term. Then, one afternoon



Actors put on their best faces to entertain the audience

in late January, four engineers- and an architect-to-be met up after an EngSoc meeting, and decided we love Engplay way too much to give up on it.

Fast forward around seven weeks, and you get thirteen charming young students unloading props from their cars in Cambridge's cleanest alleyway, just behind the Architecture building. That's right, the very first performance of Engplay this term was in Cambridge, a brilliant idea of one of the directors, aimed at bridging the unfortunate gap between the School of Architecture and main campus. For many of us, it was the first time we'd seen the School of Architecture,

and we got a great welcome from them as even the Director of Architecture came to see the play. This first performance was followed by two equally exciting performances at UW.

As for the play itself, it was humbly titled "The Odyssey: An Epic Fail." Due to the time crunch, it was decided that the play shouldn't follow a script, and was instead workshop-ed by the actors and directors. A quick glance on Wikipedia was all they needed to get the gist of Homer's "Odyssey"; the rest was all made up as they went along. The amount of val-

id plot points included and the consistency of the characters created in such a short time was truly impressive. Needless to say, the particular demographic represented by our fine team had no problems filling the already suggestive story to the brim with innuendos.

It's been a great adventure putting together this play. My wonderful Engplay teammates (actors, directors, co-producer) really impressed me with their creativity, sense of humour, genuineness and ability to balance all the wonderful things they do. We hope you all enjoyed seeing it, or at least feel horrible for missing it, which will, of course, prompt you to go see Engplay next term. Yes? Yes.

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Future of Gaming - Victory & Defeat



JON MARTIN
OBI JON1138

Another term almost finished, wow. I was intending to write a *Tin Soldier* article – check out the special insert for some great satirical articles – but there was just too much news in the last few weeks, both good and bad. News about games and consoles, as well as the people who play them.

This week has been filled with video game news as the Game Developer's Conference (GDC) was in full swing. This conference is often a good source of information about new system peripherals, business models, game features and release dates, as well as even more rumours. The conference is focused on the technology of video games, with many developers showing off how their new game works, not just showing flashy teaser trailers.

Playstation has finally released the name of their new motion controller... the Playstation Move! I know, kind of boring. The interesting thing is that the actual controller has an 'A' on it, no doubt referencing the intended name of 'Arc', for which Sony failed to secure a copyright. Either Sony will change the logo before launch or the new controller will confuse people for years to come. This puts the gaming industry in an interesting position, as two distinct motion control systems are being used in generation. The Nintendo

Wii, and the Sony Playstation both use a hardware peripheral with accelerometers and visual tracking (Wii through the sensor bar, Playstation will be complemented by the Eye camera). Microsoft is pioneering a controller-less system capable of tracking a user's motion and expression for the Xbox 360. It is going to be very interesting to see how games develop in the next few years as a result of different development requirements. Presumably the similarities between the Wiimote and the Playstation Move should allow for cross-platform games, but will those same games be possible on the Xbox 360, without a controller? Will games now be split along the Nintendo/Sony vs Microsoft line instead of the Sony/Microsoft vs. Nintendo line? In the past, a distinct version of a cross-platform game was developed for the Wii, while the higher quality game – generally with better graphics was made for Playstation and Xbox 360. Now a game could be developed for the PS3 and Wii, then ported to Xbox 360 without motion controls. While this would be a

Will games now be split along the Nintendo/Sony vs Microsoft line instead of the Sony/Microsoft vs. Nintendo line?

loss for Xbox gamers, there is a bright side. Natal's unique system will no doubt result in many Xbox exclusives, developed specifically to use the 360's motion system, and very difficult to port to PS3 or the Wii.

I wonder if the introduction of the Playstation Move will begin to alienate the Wii, as games with the same, or better motion controls can be created, with vastly superior graphics. The Wii's advantage in this console generation has been its unique-

ness, the product of its motion control system. If this system is no longer unique then Nintendo has a problem – they need something new, or they will fall behind, just like the Gamecube did.

These new technologies may also create a much wider divide between the PS3 and the Xbox 360, with more and more console exclusives.

This will no doubt lead to increased sales for each as gamers will now have to buy both consoles if they want to play new games; they can't just play the version for the system they own. The split will also increase the amount of hatred on message boards between fanboys – just what we need, right? More fanboys making idiots of themselves.

Now on to the bad news. In past articles I have talked about the way gaming has been branded as an evil source of brainwashed people, intent on murdering everyone around them. I stand by my belief that video games cannot unhinge a perfectly sane person; anyone who decides to murder another human being is already messed up. Unfortunately two deaths, both involving young children have brought video games to the forefront again on news sites.

A South Korean couple has been arrested after they mistakenly neglected to feed their infant daughter, resulting in her death from malnutrition. The parents had just spent another night at an internet café playing online games – a regular pastime for the couple, both of whom are unemployed and frequently spent about twelve

hours a day playing online. In a game similar to *Second Life*, the couple was raising a virtual daughter, while forgetting to feed their own. This is a tragic loss, and a horrible way for people to acknowledge the dangers of videogame addictions. Remember, it is only a hobby: get out and live your life.

The bill would put the penalty for selling a mature game to a minor to a minimum of six months in prison as well as a fine.

The second horrible story is about a three year old girl who mistakenly shot herself with a gun, while reaching for a gun shaped Wii accessory. The girl's father was asleep at the time, having taken his gun out after hearing a disturbance outside. I think this should be less about video games and more about basic gun safety – or the eradication of guns altogether.

Finally, far less sad news, but so incredibly stupid it requires mention, is the introduction of a new bill in the US. If passed the bill would put the penalty for selling a mature game to a minor to a minimum of six months in prison as well as a fine. This law would apply to the sales clerk, not the manager or retail chain. Maybe this will stop people from flocking to video games store for a job. The acceptable excuses include the minor's parent being with them, or having a believable fake ID.

That's it for this issue, sorry to be the bearer of bad news, but just remember common sense and game in moderation. Enjoy the rest of the term, don't let the exams get you down (benefit of being on co-op this term), and as always – Keep on Gaming.

Review Based on the Trailer: Kick-Ass



JON RADICE
3B CHEMICAL

Movies are supposed to be fun, right? At any rate, if you don't really dig the story, you should at least be entertained while they're telling their story. But then why is it so hard for me to enjoy some of these mindless action flicks? I mean, I love copious amounts of violence, and movies like *Sin City* or *Inglorious Bastards* fit that bill perfectly. But it definitely doesn't need to have a compelling story to be fun. Some of my most favourite movies to watch over and over are movies like *Jackass* or *Ong-Bak*, where the story takes the backseat to fun and interesting action scenes. I've found that my enjoyment really hinges on one thing: how seriously the movie takes itself. If

the movie is serious and you feel drawn to the seriousness, then it's obviously enjoyable. A movie that's brain-numbingly simple, as long as they're not trying to pass it off as serious, also works when everyone involved is in on the joke. But where does *Kick-Ass* fit in on this scale?

It's got a ton of blood, and a ton of violence. In the trailers you can see a katana slice through a shin, a pistol being fired at someone through someone's cheek, and someone tied up as to shoot themselves through the face. All of this comes from a 13-year-old Chloe Moretz's character *Hit-Girl* which just helps quell the bloodlust I expect in a movie. Ultra-Violence, that's a huge plus.



Does it take itself seriously? The movie and the main character are both named *Kick-Ass*. He only becomes a superhero so that girls will notice him. He can't actually fight, and spends more time spitting up blood on the floor than actually kicking ass. The movie has Nicolas Cage – that enough should be proof that the movie should pack up any hope at seriousness and just go the self mocking route. One trailer has him firing a few rounds of bullets into his daughter in order to reward her with a trip to the bowling alley and a sundae. Also bonus points for giving him one of the dirtiest moustaches in recent history.

And who is this relatively no-name director – Matthew Vaughn? Besides being

married to the 90s supermodel Claudia Schiffer, Vaughn has a small, but relatively impressive movie directing career. His first movie was the 2004 small hit *Layer Cake*. This movie was also known as the movie that made Daniel Craig the new James Bond. His only other movie was a the relatively quiet movie *Stardust*, a Fantasy movie with a massive cast that turned out really enjoyable. Without boring you with the details, this guy knows how to direct, plain and simple.

Will I go see *Kick-Ass*? Most definitely. Should you? You bet. This movie strips *The Watchmen* movie of the self-indulgent Zack Snyder crap, and leaves you with what the aging comic book nerds want. Incredible, brutal fight scenes and a hilarious plot. I'm certain that *Kick-Ass* will not fail to disappoint. This movie hits the theatres on April 16th, right in time for you to not be studying for exams.



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The Fashion Files - The Free T-Shirt



AMANDA LEDUC
3A MANAGEMENT

So I've been ranting to you about being fashionable all term, and I must admit that some of you have greatly impressed me with your trendy outfits. However, I realize that as the end of term approaches, two things tend to happen: we spend less/no time worrying about our appearances and our bank accounts approach broke.

I know that I am guilty of both occurrences. With projects and assignments due constantly, I wake up most mornings thinking "I can wear jeans and sneakers today" even though I hold the personal rule of wearing skirts or dresses at least 3 days a week; therefore, jeans no more than twice a week and at least once with heels. Also, as my bank account drains near the end of a school term, I really can't justify going shopping for new seasonal accessories until the bank account rises at the beginning of the following work term.

I suppose the clearest way to state this is mathematically as a function of time since we do not all speak the language of fashion, but I know we all speak the language of math (with varying degrees of fluency):

$$F(t) = \lim_{t \rightarrow \text{EOT}} (1/t) = 0 \quad (1)$$

From equation (1), it can clearly be seen

that as time approaches the End Of Term, fashionableness approaches zero. Who said Management Engineering can't do math? Anyway...

This article focuses on those who have overcome the inescapable F(t) function above by finding a way to look great on a low budget while showing support for their favourite engineering events: all hail the free T-shirts! In fact, any EngSoc director knows that the best way to get volunteers for an event is to offer a free T-shirt which can then be re-worn countless times as shown by these economical and fashionable students.

Eric – Explorations

Eric rocks the looks of this fantastically designed Explorations t-shirt. Whoever the Explorations director was this term had the good thought to offer free T-shirts to all 100 volunteers that helped run this event. The best part, the T-shirts are in full colour, something rarely seen on a free T-shirt. In fact, these T-shirts led over 750 students and their parents through the Engineering buildings teaching them about the marvels

of engineering. Eric proudly displays that he cares about persuading today's youth to pursue engineering as an educational path by sporting this T-shirt!

Rebecca – Bus Push

The term's Bus Push T-shirt was fantastically and creatively designed. Props to the Bus Push directors for this use of our favourite childhood show "The Magic School Bus" as a fundraising logo. "The Magic Bus Push" was a huge success with many participants and over \$5000 was raised for the Heart and Stroke Foundation. Not only catchy and recognizable, this awesome yellow T-shirt modelled by Rebecca shows what engineering students can do for the betterment of society when they are motivated to be incredibly disruptive and raise money at the same time!

Noel – Frosh Week (Civilizations)

The Civilizations Frosh Week of 2009 was possibly the awesomest frosh week of all time (so far). Noel reminds us of this epic frosh week by wearing his EdCom T-shirt with the Civilizations logo. Kudos to

the '09 FOC for selecting this design because its looks fantastic. Not only does this T-shirt look awesome, but it reminds us of our duty to lead the frosh through their first year of engineering in the hopes that they are among the few (in Management anyway) that survive 1B. We all have at least one Frosh Week T-shirt and yet I only ever seem to see EdCom wearing theirs. Bigs, Huges and Frosh, wear your t-shirts proudly!

It's been great seeing all of the fashion in the Engineering Faculty this term. I look forward to writing about all of your fashion awesomess next term. I will miss you all greatly until the Fall 2010 term commences (especially the grads who are not returning for grad school)

Stay Classy,
Amanda LeDuc
Chief Fashion Officer



Mike The Engineer

MICHAEL NEW
3A CIVIL



The Iron Sudoku

ALISON LEE
1B NANOTECHNOLOGY

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

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 IRON INQUISITION

Amrita Yasin & Michelle Croal, 3B Chemical

"How will you keep distractions away while studying for exams?"



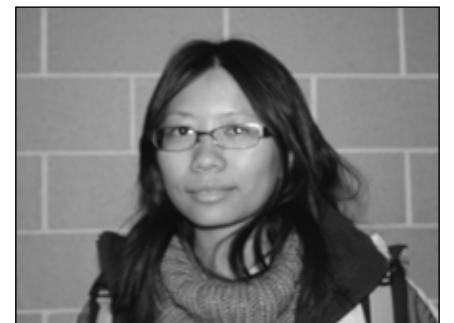
Sarah Glover
3B Chemical
"Go to DC and sit in one of those cubicles"



Hashim Javed
3B Environmental
"Just spend more time 'studying' in here"



Paul Fugere
3B Computer
"Listen to white noise generator"



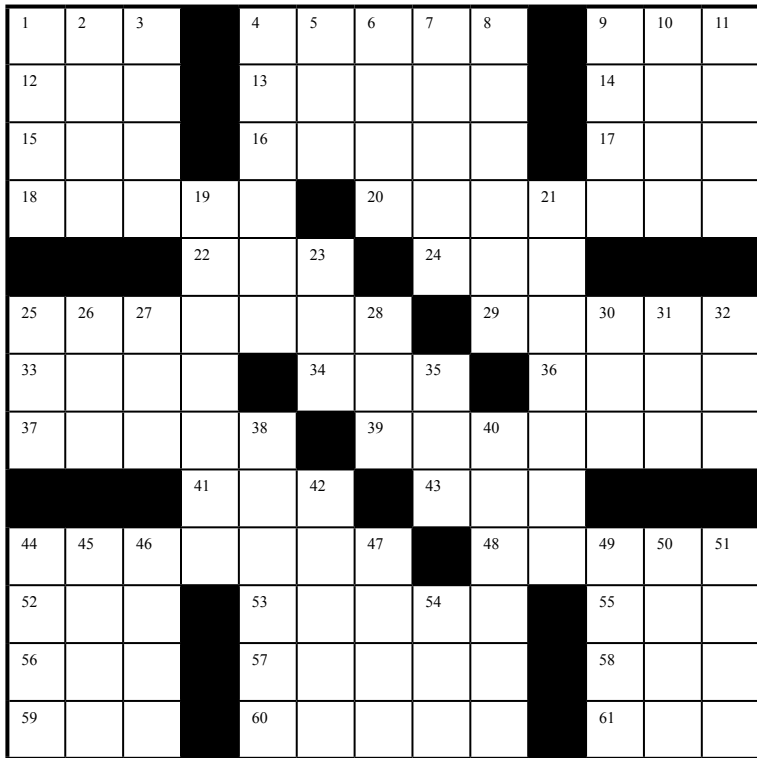
Jane Ho
4B Environmental
"I won't be able to"



Johnny Loh
4B Mechatronics
"What if I just don't study"

The Iron Crossword

MICHELLE CROAL
3B CHEMICAL



ACROSS

- 1 Commercials
- 4 Organs and entrails, culinary sense
- 9 Common engineering software for 3D design
- 12 To cut off a piece from a tree
- 13 Poem with lines of 5-7-5
- 14 Water below 273K
- 15 United Nations Organization
- 16 Includes Great Britain, Ireland and others: British ____
- 17 The alien from a late 80s NBC show
- 18 Ditto (2 wds.)
- 20 Frees from containment or cage (2 wds.)
- 22 Scabbers
- 24 Males

- 25 Ruled, such as in a dynasty or kingdom
- 29 Further out than the suburbs
- 33 Opera solo
- 34 78% N2, 21% O2, 1% CO2, Ar etc
- 36 Small white lies
- 37 Produce a publication
- 39 Lead role, The Horse Whisperer
- 41 Anger, annoyance
- 43 1/thousandth prefix
- 44 Shrouded in darkness, mysterious
- 48 Capable of being bribed, corrupted
- 52 Go to Health Services if you feel this way
- 53 Molten rock below surface
- 55 "Yes" in Ville-Marie
- 56 Star sign July 23 to August 22
- 57 Chinese, Korean, Japanese, Thai etc

- 58 Double bonded hydrocarbon suffix
- 59 What's up?
- 60 Bird homes
- 61 Limited (abbr.)

DOWN

- 1 Aluminum derived compounds
- 2 Finished
- 3 Stain, blemish
- 4 Buckeye State resident
- 5 Fetal Alcohol Syndrome
- 6 To occupy to capacity
- 7 Basketball player ____ Olajuwon
- 8 Light interaction, such as sheen or shine
- 9 Goodbye, in Milan
- 10 American Civil Liberties Union (abbr.)
- 11 Dextrous, skillful
- 19 Grown without chemical fertilizers
- 21 What Snuffleupagus does

- 23 Drink served around mid afternoon
- 25 Hip hop music
- 26 To be wrong or mistaken
- 27 Three, according to Remus and Romulus
- 28 Director (abbr.)
- 30 Brazil's second largest city
- 31 File extension for Adobe brushes
- 32 Hallucinogenic drug
- 35 80s band: "Losing my religion"
- 38 U.S. President from 1945-1953
- 40 Sofas, originally from the Ottoman Empire
- 42 Wipe, rub off
- 44 Fats
- 45 Type of cheese
- 46 Swill, used to feed pigs
- 47 Variant of "aegis"
- 49 Christmas
- 50 Your mother's sister
- 51 Fibbed
- 54 Entrance rug

Alice at a Tea Party

LEAH SICZKAR
2A GEOLOGICAL



RETHINK
MODERN LEADERSHIP & INNOVATION

INSIGHT INTO THE IDEAS THAT DRIVE TODAY'S INDUSTRY LEADERS

MARCH 30 - APRIL 1
HUMANITIES THEATRE, HAGEY HALL

<p>MARCH 30</p> <p>ALFRED SPECTOR 1:00pm - 2:30pm VP, RESEARCH & SPECIAL INITIATIVES</p>	<p>MARCH 30</p> <p>JOSEPH FACCA & TERRY LAVIOLETTE 3:00pm - 4:30pm DIRECTORS, VALIDATION ENG & SOFTWARE DEV</p>	<p>MARCH 31</p> <p>PAUL SMITH 1:00pm - 2:30pm LAB MANAGER, MATERIALS DESIGN</p>	<p>MARCH 31</p> <p>PETER TANG 3:00pm - 4:30pm VP, INNOVATION</p>	<p>APRIL 1</p> <p>ROBERT HARDT 1:00pm - 2:30pm VP, INDUSTRY SECTOR</p>
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