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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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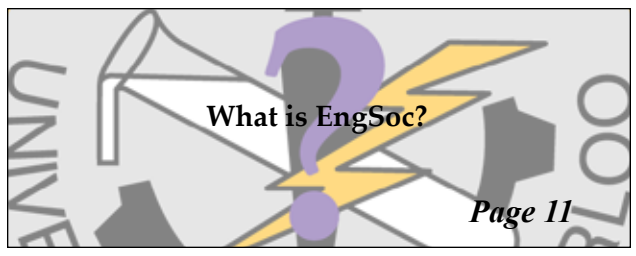

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http://iwarrior.uwaterloo.ca

First Year Enrolment Hits 1600 Students

More students accept offers of admission than expected placing a strain on resources

ANISH BHUTANI
3N CHEMICAL

Mike Seliske

Hundreds more yellow hard hats will pop up during orientation week due to increased enrolment

As the summer term is coming to an end, students on campus are focusing on their end of term projects, getting ready for final exams, and thinking about co-op starting in the Fall term. However, while we are working hard with school, the Faculty of Engineering and the University as a whole are working to prepare for the new wave of first years that will be entering Waterloo at the beginning of September. Although this is a common practice every summer term, this year it will be special. That is because as of right now, there are over 1600 students who have accepted to join Waterloo Engineering (Compared to the typical 1200-1400 that normally enter).

We spoke with Professor Bill Anderson, the Director of Admissions, to find out what this number represents and why it was larger than in previous years. He explained that when deciding how many students to accept into Waterloo Engineering, the university has an algorithm based on OUAC applications to determine how many students should be accepted into engineering such that when the high school students choose another university, Waterloo still meets their quota.

Even though the number is higher, it does not represent that the students coming in will be of any less calibre as they are right now. That is because the order of acceptances into the engineering program can be at or around 3000 students, many of whom will get accepted to other universities, possibly with other incentives (scholarships, closer to home, friends) and choose not to accept their acceptance to Waterloo.

In June, the number of first years came to over 1600 students, which is spread out among all thirteen disciplines in the faculty (including the School of Architecture). While this number can still fluctuate, since for many of us we were still not 100% on where we wanted to go and students may

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WatPD 20 Course Content Proposal Accepted

ALEX HOGEVEEN RUTTER
3A ELECTRICAL

The winning proposal to produce Wat PD Engineering 20, the replacement for PD Eng 15, was decided at the July 7th meeting of the Wat PD Engineering Curriculum Committee. The team comes from the Department of Philosophy with implementation lead Greg Andres bringing experience in both distance education and teaching to non-philosophy students and curriculum lead Tim Kenyon, Chair of the Department. Other members of the team include Gerald Callahan, with extensive experience in producing online courses and professional engineer Chris Eliasmith who is cross-appointed with Systems Design Engineering.

The preliminary design review occurred July 14th, with the Centre for Learning Excellence and professional engineers joining the curriculum committee to review and provide feedback to the proposal. Unlike the development of most courses, the curriculum committee will continue to provide oversight to the course until the second design review in early September.

“The course will introduce students to the professional practices of critical thinking and clear communication. It focuses on how one is thinking and acting, and on communicating one’s reasoning clearly, in the context of typical co-op and long-term engineering placements. The unifying course theme of PD 20 is critical metacognition in professional contexts. “ {From the proposal}

The main theme is critical thinking about how we think and come to decisions and the implementation lead is eager to incorporate engineering examples to demonstrate the key ideas. I sat down with Tim Kenyon and Greg Andres to further clarify aspects of the proposal.

On their approach to teaching online: Students must be engaged with the content and verbal instruction is ideal, preferably including 2-way feedback and communication. While text will be offered as a supplement, the main instruction will come in the form of a video lecture (with transcripts for those who prefer/require written instruction).

On incorporating engineering content: Each module will be introduced by a video with a professional engineer, professor, student or panel, with the majority intended to be practicing engineers from industry. The introduction will illustrate an example or case study of an engineering decision and what can be learned from it. Furthermore, Greg Andres intends to be a “fly on the wall” in engineering over the

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Waterloo Logo Controversy: One Year Later

BHAVYA KASHYAP
STAFF WRITER

"Building a better future... one story at a time." In bold, large, sans-serif font, these are the first words that are displayed on the University of Waterloo's current positioning guide. The guide speaks of what the University of Waterloo stands for in the scope of the world, and how the story of each student, current or prior, each member of faculty, and each contributer to the institution builds it up into what it is. It talks about the university's roots, and how it has risen from something small to be a place of creativity, innovation, and unconventionality.

The leaked logo subject to much debate last year.

Recent discussions with Vice-President of External Relations Meg Beckel have yielded insight into the present rebranding process. "A majority agreed that a change is needed for the uWaterloo brand expression and a simple strong wordmark would meet the needs (a majority, although not all)," mentions Beckel. Of course, she is right. This guide had been a long time coming.

The University

UW's current reputation falls under a strange category, in that it projects the image of a much older institution while attempting to be technologically oriented and cutting-edge. While the UW is well-known in the tech industry and the scientific community, Waterloo's reputation outside of Ontario is not especially apparent. The institution has neither the age nor its benefits to market itself beyond the borders of the province; to distinguish itself from older, more revered places of learning such as UofT and McGill, it needs marketing to reflect what it is.

Suspicions about UW's reputation were validated by a cross-country reputational survey conducted by public-opinion firm Ipsos-Reid [2008]. Aware of this, the administration included the need to create a baseline awareness of the university's strengths in their Sixth Decade Plan. The strategy began

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Letter From the Editor

Setting a plan for the the future of *The Iron Warrior*

ANGELO ALAIMO
EDITOR-IN-CHIEF

Thanks for once again picking up a copy of The Iron Warrior and turning to this page. This production Weekend has been quite the challenge with getting enough content to fill every single page. I must admit, I was a bit ambitious with my Tin Solder. Ideas flowed around the office during weekly meetings rather fluidly and by the time the 5th issue rolled around, I amassed enough content to overflow my 4 page allotment. I laid out the what content I had, but still fell short of 8 pages necessary to increase the page count. When this happens, as editor you have a few options – 1.) cut articles to fit into 4 pages 2.) Find more content.

I took the 2nd option and frantically begged my writers to come up with more ideas to fill the pages, and what you see in the middle of the paper is the result. I'm not going to go over the contents of the paper as I have for my last four issues as I want to write my reflections as editor of the newspaper for the term. I hope you enjoy the paper otherwise.

By the time I finish this article, I have been helping out with the newspaper for close to 20 months, and spent well over 200 hours of time into it's production. As a staff writer in previous terms, I never really fully understood the role of editor in directing the paper until it was my term to do so.

To me, The Iron Warrior is an extremely important part of undergraduate engineering at the University of Waterloo. As a first year, I always looked up to those who wrote for the newspaper and thought of the Editor as a mini-celebrity within engineering who holds some sort of ultimate wisdom. I always enjoyed reading the articles of every issue and saw it as a way for everyone within the engineering community of Waterloo to reach out to other people they would likely never meet or hear about.

As a person who enjoys photography as a hobby, in first year I always wanted to join Imprint or The Iron Warrior as a photographer to take photographs and then have them published for all to see. I never wanted to write, as I thought I wasn't good at writing or had anything interesting to write about.

My first article for The Iron Warrior took me almost 12 hours to write over 4 days as I poured over each sentence to try to make it as perfect as possible. I knew that many people, including my peers, would read the article so it had to be good. To this day, I feel like it's the best article I've ever written and nothing I've written has since eclipsed it, and that's important to me.

It takes a lot of effort to put words onto a screen about a certain topic, especially if you do not have a good background on the topic you are writing about. For the staff who take the time to write for the newspaper, it sometimes takes them hours of research to produce a coherent article that has a point.

The Iron Warrior serves a purpose to Engineering students on this campus. It brings them news of the Engineering Society, news of the University, and news about Engineering world not covered by other media outlets. It covers accomplishments of student teams, individual students, and general members of the faculty. If anyone has anything to say about anything within the world, they're able to submit it for publication in this newspaper without having any prior involvement with the paper. It gives anyone within the University a space to share news, express thoughts, or even question the validity of policies.

When I came into this role, I knew I needed to sustain the reputation of the newspaper set by the previous Editors that came before me. During my time as Editor, I thought to myself - Where do I see the newspaper in the future? Where do I want to see it? How do we get there? After thinking about these questions, I realized there isn't any solid plan for the newspaper apart "from maintaining the course as usual."

There isn't anything wrong with this plan, but I feel the newspaper has so much potential to be more than it currently is. A short term as Editor-in-Chief is one of the problems I faced when thinking about change. Four months, especially when trying to juggle 5 full time third-year engineering courses, is not a long enough time to change some of things with the newspaper I felt were in need. If I can't change everything with the newspaper within my term, I can't be certain that all future Editors will want to change anything due to time constraints or lack of drive.

Financial resources are another constraint blocking the potential of the newspaper. We can't really print more than our current distribution. One way to help the paper is to set up a fixed student fee which would go towards The Iron Warrior much like how Imprint is run but would instead be funneled from Engineering Society student fees. At this point in time, I'm firmly against that notion due to reduced freedom.

Now, this 'change' I'm alluding to is to do with the visual presentation of the paper. It was changed over three years ago to the scheme you currently see. It's not exactly the same as it was, but has evolved into what you see today.

To me, this scheme works as a student newspaper, but after playing around with our template this past week, I really feel it's time for another visual change. My main motivation is to give the paper a more updated look. Nothing major though – just changing some of the fonts we use and how we organize the paper's sections.

I wanted to pull it off for my last issue, but realized it would be too much of a change for one issue, and we need to get it right the first time. The time-line necessary to get the changes implemented was not possible in time for this issue. After getting comments from some advisory board members, I have decided to try to put together a small team of current previous Editors and other advisory board members to put together a new template for the newspaper.

Once again looking to the future, the paper has a pretty solid base of volunteers who have taken it upon themselves to assemble 5 issues a term. The paper is currently in great health in the people department; however, looking at the terms of the people who help out with the paper, it's easy to see Bsoc's volunteers are mostly in 3rd year with only one or two 2014's helping out. We'll need to do a major frosh recruitment drive this September to recruit new people to The Iron Warrior in order for their to be a good transfer of knowledge in the next couple of years to continue the paper's success.

People are this paper's best resource. It's what drives its production from not only the people who put it together but also from those who read it. As I have mentioned many times before, this paper wouldn't exist without them. Thank you for reading this editorial, I've had a blast putting it together over the last 4 months. If you have any questions or comments, send me an email, I like getting them.

Cheers,
Angelo Alaimo
iwarrior@engmail.uwaterloo.ca

Staff Appreciation Corner

My term as editor is over!... well not quite, as there's still the frosh issue later in August. Due to space constraints, I likely can't thank everybody, but I'll do my best. First, I want to give a huge thank you to the IW Spring 2010 staff for their efforts in producing this newspaper. The pages you will stare at as you read along in the paper would not have existed without their focused and tireless efforts. Secondly, a huge thank you too all the contributors who decided to submit an article on a whim to the paper. These submissions are always appreciated and are great to have. With the combined efforts of staff and contributors, The Iron Warrior printed over 115,000 words spread over 92 pages of Tabloid paper this term!

Secondly, thanks to all our advertisers who without their financial help, this paper would not be possible. Next, thank you to my photo editors who helped out with the photography contained in the paper. A special shout-out to Michael Seliske whose astonishing library of Waterloo Engineering photos helped add context to articles. Next a huge thank you to the copy editors who took it upon themselves during their short weekends to help proof-read articles! I honestly would not be able to catch every grammar/spelling mistake without you!

Now on to some more direct thanks:

Bhavya, your amazing drawing/photoshop skills really made me look forward to each comic you produced this term, thank you! To Hob, thank you for joining our team and being driven to volunteer for many PCP's this term. Also, thank you Lisa for joining the team as well and helping out with making the crossword each week! To Jon Martin, thank you for being so dependable in writing your weekly gaming articles. To Kirsten, thank you for coming to the team and diversifying the content of the IW - I always learned something new from your articles. Thank you to all Exec who got their reports to me at a decent time, you made my life easier!

Now, I'd like to especially thank Erin Matheson for always being with me in the office during production weekends, without you there, I would mostly be all alone! Also, thank you for writing an astonishing 13,819 words this issue which gives you The Iron Pen award for the person who has written the most in a given term!

Next, a HUGE thank you to Amrita Yasin, EIC of the previous winter term. You taught me the basics of layout and really helped me out getting orientated with the inner workings of running the newspaper. Also, thanks for taking on some of the more serious topics in the paper and always having well written articles for me within hours notice when I needed someone to cover something over a weekend! For your efforts this term, I am happy to announce you have won the Editor's Award! Congratulations.

Next, another thank you to Cailin Hillier for being big help for this last issue! I know you weren't always able to be here on production weekends, but I have no idea how I would have gotten the newspaper done before midnight on Sunday in it's final form without you. Good luck as my successor next term in the Editor-In-Chief's chair!

Last but not least, thank you to Mary Bland who helps out with the paper's financials. I can only imagine how much less time I would have without your expertise!

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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Increased Enrolment Strains Space Resources

From ENROLMENT on Page 1

choose to switch to another university while on their break, Professor Anderson mentioned that traditionally, this does not change by more than a couple percent.

The question you might be asking yourself now is "what does this increase in the number of incoming first year students mean to me?" Firstly, if you are a junior-intermediate co-op student looking for a job in the Winter term, you will have more stream 4 students who will be looking for jobs on their first work term. Similarly, those going to look for a job in the summer term will also have more competition than normal.

This will also affect those who are working with orientation week. With around 200 extra students arriving on campus, there will be a lot more first years in each of the colour groups. Anyone walking around the university the week before classes will notice a lot more white shirts and yellow hard hats running around.

Fitting the students into their classrooms has been another issue that needs to be addressed. I emailed Professor Ajoy Opal, Director of First Year Engineering, about this issue. He mentioned that the first year office has been working to find classrooms that will fit all the incoming students.

Fitting the students is a challenge since so many other classes in the Fall term will have a hundred or more students in them and as such will require large classrooms. There are many courses in the Math, Science and Arts faculty such as Econ 101, Chem 120, and Math 127 that are taken by a number of students in any program as a required first year course. Scheduling has been done in order to accommodate the needs to fit students in all faculties

Another change that the First Year Office has made in order to accomodate the number of incoming students is that the office is increasing the number of TAs hired so that the support needed for the first year students will still be there. The First Year Office will still work to help all students succeed as they go through their first two school terms and work term in the coming year.

Course Intent: Global Skills in Professional Context

From WATPD on Page 1

next few months to learn the engineering perspective.

On the format of the course: After the introduction, the rest of the module will flesh out the issues involved in the example and look at the theory and general application of the lesson. Finally, there will be supplemental readings of case studies or academic or professional papers to reinforce the content.

On the workload required: The course is designed to take approximately 30 hours, with 10 hours or less spent on the deliverables. The curriculum committee will review the workload to ensure this is reasonable for a first-year engineer.

On assessment (Note: while much of the content, design, etc. could still change, the assessment component, in particular, is still under review): Each week, the module will contain a brief, multiple-choice quiz to ensure students have read the content before progressing in the course. There will be two main assessments (eg. midterm and final), both with a short answer and written component. Additionally, two of the modules will have a 200-300 word writing assignment. There will also be an opportunity to develop feedback and reflection skills in the subsequent week. For example students might review and provide feedback to the assignment of another (anonymous) student.

On similarities to existing courses: The theme, critical thinking, is similar to that of Philosophy 145. However, content will be removed to reduce to 30 hours of course material. The 'grand philosophical questions' will be left aside in favour of further application to broader social situations.

On philosophy and engineering: The course is not about philosophy, but about critical reasoning. As Greg Andres stated in our interview, "I will not be surprised if students do not realize I am a philosopher." The intent of the course is to give students global skills in a professional context.

The curriculum team, along with the curriculum committee, is excited among creating meaningful, relevant content for engineers on co-op. Ideally, the skills will be relevant in an engineering workplace as well as a more global environment. The tangible ability to reflect upon one's engineering thought process is intended to put Waterloo engineers at an advantage when competing in an industry environment.

University Rebranding Moves Toward New Look

From LOGOGATE on Page 1

with proposed modifications to Waterloo's visual identity. The new design was to be modern and fresh in alignment with the university's youth, "with the bold gotham font, the simple wordmark system, the striking use of colour to differentiate the faculties and professional schools and the use of line work as a design element".

The Fiasco

Designing the identity of any large institution is a difficult and delicate task. The identity of the school is a reflection of the students, and so the design process is required to consider all the demographics that constitute the student body. The difficulty lies in pleasing all these individual groups, though it is well known that whenever a large project such as an image-redesign is implemented, not everyone will be content; some initial confusion and disapproval always accompanies change. Unfortunately, the premature release of the newly proposed logo in mid 2009 garnered extreme bad press after the dissent of the students came to light.

The source of the distaste was quickly made known to the design committee. Sarcastically dubbed the "WaterPEW" logo due to the "laser-like" lines running through it, there was much focus on the image itself rather than on the positioning framework accompanying the new branding. Meg Beckel has stated, "The lines in the W created the majority of the negative reaction. We heard that message from people who spoke to us, sent emails, or messaged us on Facebook." The general sentiment among the students was that it came across as amateurish in appearance, or something to be used in the advertising of a strip club. Protestor numbers ran into the thousands, as indicated by the student-run Facebook group that was created to voice student and alumni displeasure.

Much of anger surrounding the changing of the logo was due to the lack of context. All the initial designs were leaked while they were in the process of being reviewed; since the logos were not paired with any of the other branding elements-banners, stationary, or explanation- many were baffled by what they perceived to be an attempt by UW to make the university seem more attractive to students of lower calibre. Many of these students were also unaware that the majority of the rebranding was purely to be used for marketing purposes, and would not be reflected by any official documents. These issues were addressed by a memo jointly written by Beckel and President David Johnston on July 16, 2009, a mere three days after the leak, but the damage had been done. (http://www.bulletin.uwaterloo.ca/2009/jul/16th.html)

The Changes

Lessons were learned from the backlash, and the feedback was taken into account. With revision #2 of the branding, the major changehas been the withdrawal of the previously proposed logo: the bold W with solid lines of colour running through it. The actual direction taken by the branding has not diverged. "The positioning framework remains unchanged from the fall 2008 approved and communicated version," says Beckel. "It was well received, recognizing that the vision, values, attributes, promise and positioning statement were all intended to represent current reality and aspirations. Our real focus is telling our story to position Waterloo as the university operating at the frontier of innovation in learning, discovery, collaboration and experience. We have so many great stories that demonstrate how our students, faculty, staff, alumni and partners are full participants in building a better future … every day. "

Reception of the new branding as a whole has been shaky but Beckel is optimistic, putting it down to misunderstanding of what the brand is. "I hope our students feel that our verbal and visual expression of our brand is fresh and bold. Many students thought our brand was simply our logo. That is not the case. Our logo, our symbol, our wordmark is simply one element of our story. I hope our students understand that our brand is more than a wordmark or logo; it is who we are, why we exist, how we operate and where we exist in the university sphere. It is one way we visually express the why, who, how and what that is Waterloo. All those elements make up our brand."

"The positioning framework remains unchanged from the fall 2008 approved and communicated version" - Meg Beckel - Vice-President of External Relations

Beckel emphasizes "Our brand has not changed … we are simply telling our story verbally and visually in a more compelling and consistent manner. We have to be better at telling our story to a global community outside Waterloo Region so that we attract the very best students, faculty members, donors and partners who want to be part of our future. We especially need to attract the right partners and donors so that we can continue with our unconventional approach to innovation and creativity."

The infamous W can still be seen on campus here and there, on old stationary and on signs, and debate on the logo itself still continues. Beckel has indicated that the suggestion to host a design contest, where anyone would be able to submit their patterns under specific guidelines, has been discussed. She stressed, however, that until all core elements of the new brand have been rolled out, the university will continue to use the [abstract] W as a secondary symbol, as it has been for many years.

She closes with, "I hope our students start to see, hear and participate in telling the Waterloo story. Our stories are our most effective marketing tool and we need our students to be both part of the story and the storytellers." In a manner that is almost self-fulfilling, this story will be interwoven with those of the university's participants for as long as the University of Waterloo continues to be.

Special thank you to Meg Beckel, Vice-President of External Relations

Another Sucessful Waterloo Engineering Competition

Winners move on to represent the University at OEC 2011

KEVIN LING
3A COMPUTER

The Waterloo Engineering Competition ran on July 9th and 10th. Very similarly to how it operated in its last two iterations, competitors arrived on Friday night and were given a competition problem upon their arrival. The competitors had the remainder of the evening in which to create a prototype or draft a report to solve the problem at hand.

This term, the Senior Team Design category was given the challenge of building a rescue vehicle for a simulated avalanche scenario. A Styrofoam terrain, with cotton balls to simulate snow, had several magnets scattered around. Competitors built small vehicles with motors controlled by switches to maneuver around the test setup and pick up the magnets, then deposit the magnets back at the start of the course.

Meanwhile, the Junior Team Design participants were busy building a prototype to pick up pieces of candy and bring them up a ramp. At the top of the ramp were a few steps that the prototypes would then have to climb. Unfortunately, during demonstrations, this problem proved too challenging and the best teams were only able to make it partway up the ramp. The competition organizers have taken this into account and will be looking for a more reasonable problem in future versions of the Waterloo Engineering Competition.

Finally, the Consulting Engineering competition division was given a problem relating to the technological advancement of Waterloo. In this category, teams prepare a presentation and report, as if they were a consulting firm, to convince a panel of judges (the clients) that their solution to a problem is the best. This year, the problem asked teams to create a plan to spend three to five million dollars per year over the next three years to dramatically improve the broadband infrastructure in the tri-city region.

Congratulations to Tin To Chan, Naiwen Cui, Howard Pang, and William Zhao for placing first in Junior Team Design. Naman Kumar, Woohyuk (Austin) Lee, Samuel Legge, and Michael Winer took the prize in the Senior Team Design category. Last but not least, the team of Adriana Cameron, Ian Davies, Trevor Jenkins, and William Zochodne lead the way in the Consulting Engineering division. All of these competitors will be representing the University of Waterloo at the provincial level at the Ontario Engineering Competition of 2011. Next year's competition will be hosted by the University of Western Ontario.

The Waterloo Engineering Competition is slated to run again next term, with specific dates to be announced. More information on the competition can be found at www.wec.uwaterloo.ca.

Angelo Alaimo

The Winners of the Junior Team Design Competition show their winner prototype. The winning team received $500, and the runners up, $250.

Angelo Alaimo

Competitors and Judges await the announcement of the winners after a morning of presentations. Door prizes were handed out to all competitors of the competition.

Angelo Alaimo

The Winners of the Senior Team Design Competition pose with the judges while showing their winner prototypes. The winning team received $500, and the runners up, $250.

Angelo Alaimo

The Winners of the Consulting Engineering Competion pose with judges of the competition. Teams have to produce a report and presenation in 5 hours The winning team received $500, and the runner up, $250.

David Johnston as Governor General

Is a positive gain for Canada a loss to Waterloo?

ERIN MATHESON
2B CHEMICAL

Following his appointment as Michelle Jean's successor as Canada's next Governor General, news of UW's own president David Johnston swept the country. While both praise and criticism towards Stephen Harper's decision was discussed nation wide, it's safe to say that a collective sense of pride could be felt around campus. For a University that is no stranger to remarkable accomplishments, this was most definitely a landmark to take note of.

Johnston took on the role of UW's fifth president in June 1999, and the changes that he has seen during his 11-year presidency have truly been remarkable. Waterloo's reputation as a top Canadian University has skyrocketed, our campus has seen a rate of expansion not seen since the 1960's, when main campus itself was first being built, as well as adding the Kitchener Pharmacy campus, breaking ground for the Stratford campus this fall, and opening doors for UW students in Dubai for the first time as well. During the Town Hall meeting on October 20th, 2009, Johnston noted that Waterloo's reputation had reached '#1 for 16 of the last 18 years'. A notable accomplishment, but Johnston continues to push to improve Waterloo even further. In 2008, the introduction of the '6th decade plan', marking UW's 6th decade of operation, was officially introduced. The plan outlines in detail how resources will be poured into undergraduate, graduate, research and co-op programs on all campuses with the end goal of Waterloo being recognized internationally as a world-class institution. Realizing the importance of both reputations as well as results, Johnston has arguably been able to accomplish what some strive to accomplish over the course of their entire career in the matter of just over a decade.

Looking at his accomplishments during his time here at UW, there is little question as to why Johnston was awarded this position. I personally believe he will do an excellent job serving as Governor General, and could not feel more proud to be a Waterloo student during this time. However, I like many other students cannot shake a somewhat uneasy feeling knowing that we'll be losing such an influential part of our administration. There is a fine line between leaving big shoes to fill for your successor, and leaving a mammoth weight to drop onto their unsuspecting shoulders, and I feel UW is currently dancing dangerously along this fine line.

Although the administration has yet to name Johnston's successor, I hope that the administration breaks tradition and does not jump to a quick decision on this one. UW continues to exist within an upswing of development within all aspects of our University and the most devastating thing that could happen would be for this momentum to stop. Although we are only two years into the '6th decade plan', results can already be seen around campus in the form of increased enrollment and the beautiful new buildings popping up all over campus. There also exists extensive plans regarding what will go into the buildings once their finally built; world class research facilities and state of the art student shops that would make any of our countless student teams start to salivate aren't simply a dream, but rather just around the corner. It's this type of vision and foresight on the part of Johnston and his team that made this all possible, and losing this in our next president would be catastrophic for UW.

However, I, like many other students cannot shake a somewhat uneasy feeling knowing that we'll be losing such an influential part of our administration.

I'm not trying to say that there haven't been hiccups and mistakes along the way; such is the case with any administration. The point is that UW currently has the focus of putting out the best and most prepared new employees into the workforce, as well as being home to some of the most groundbreaking research in the world, in countless fields. This mentality is the backbone of what it takes to become the world-class institution we are currently striving to be. What I fear the most is the potential for our University's new president to ignore the countless initiatives already started, and allow our school to sink to a level of cashing checks and handing out diplomas and completely disregard what goes on in-between.

As Johnston is preparing to embark on a new chapter of his career, the University he is leaving behind is starting to prepare for a new chapter of its own. I only hope those responsible for choosing Johnston's replacement realize the impact their decision will have not only on the structure of the administration, but the University as a whole for years to come.

Sharing the Road: How to be a Sensible Cyclist

SYLVIA WU
3A MECHATRONICS

In the June 23 issue of the Iron Warrior, I asked for advice on how I can be a safe and considerate cyclist in Waterloo. I didn't get an overwhelming amount of emails, but those I got offered great advice. I would like to extend lots of thanks to Kevin Yeung (Civil '13), Brandon Walderman (Software '13) and Neil Partridge (Chemical '11).

How do I prevent getting scraped by a big mean van?

"Drive a bike like a car. Look as far ahead as possible. Look backwards occasionally, much like checking the blind spot in a car. This way, you will have lots of warning on any sketchy situations or close calls. If that's too much trouble, just go faster than the cars so they can't pass you." -- *Neil Partridge*

Several of my cyclist friends have rear-view mirrors. You can get these for under $10 or even at Dollarama. This could be a good alternative if you are nervous about looking backwards a lot like me (I tend to swerve towards wherever I look… terrible and dangerous habit).

Road or Sidewalk?

"As I understand it, the law in Ontario is that bikes are road vehicles. Where there's no bike lanes around, they are entitled to share the road with "real" vehicles. I completely agree with you though that spandex-clad douchebags running red lights and so on give cyclists a bad name. There just needs to be a better understanding in general of how cycling etiquette works. Too often I see people riding the wrong way down a bike lane, or pedestrians at the University Ave. train tracks cutting in front of cyclists that have the right of way. As far as sharing the road goes, whenever I'm in a tight lane with other vehicles I just try to ride cautious and remember that cars are probably more nervous than I am." -- *Brandon Walderman*

"I am both a walker and a driver when I'm in Waterloo but I also do cycle when I'm back at home in Markham (north of Toronto). As well, I have done a couple of co-op jobs focusing specifically in active and sustainable transportation including both walking and cycling.

One of the things that I learned on my co-op job is that with respect to cycling on the sidewalks, from a legal perspective, a municipal by-law might prohibit bicycle riding on sidewalks. This is certainly the case in Waterloo (see Traffic and Parking By-law #08-077). Since bicycles (with a wheel diameter over 50cm) are considered as vehicles, which cannot travel on the sidewalk, bicycles travelling are also prohibited. Now it doesn't mean that this is enforced. As I am walking to and from campus, cyclists always zip by me on the sidewalk.

I'll give them a bit of credit though, these cyclists are trying to stay safe. While the road network around campus actually has bike lanes dedicated for cycling use, it doesn't mean that drivers respect them. Even more so, it seems like the cyclists themselves don't know how to use the bike lane. More often than not, I see cyclists travelling in the opposite direction of traffic in the bike lane. And often I think that one day someone is going to be hurt either by an unsuspecting driver or cyclist travelling in the correct direction. " -- *Kevin Yeung*

FEDS Engineering Councillor Report

TREVOR JENKINS
FEDS ENGINEERING COUNCILLOR

With spring term winding down, things are slowly starting to ramp up in the world of FedS, with all the new first-years and regular-stream students set to arrive back for the Fall term. Here's a quick update of some things that have happened recently.

First off, as many of you have already heard, the Canadian Asian Student Association (CASA) was recently disbanded. The original disbanding was passed by the Internal Administration Committee (IAC), which oversees all FedS clubs, and was appealed by CASA to Students' Council. The appeal at council included presentations from CASA, and the IAC, and, since it was such a contentious issue, was followed by a three hour discussion of council. The appeal was ultimately denied and as a result, CASA, or any similar club, will be unable to reform for 2 years. For more details check out the official press release from FedS on July 12th, available at pulse.feds.ca, as well as the July 16th issue of Imprint.

Next up, the FedS Services Review 2009-2010 was presented at council, and is available at pulse.feds.ca. Over 2500 students responded to the review, which is unprecedented for a review of this type, and faculty/years of respondents were an accurate representation of the student body. From the report, it appears that most students are unfamiliar with all the services provided, however can name or have used some. From the ones they are familiar with, the services got positive reviews for the most part. For those of you who don't know, the total listing of all services offered by the Federation include:

- GLOW, the Queer and Questioning Community Centre, which provides resources and support to members of the LGBTQQ/queer community on campus
- The Student Refugee Program, which sponsors refugee students to attend university and support them while at UW
- The Food Bank which provides food to students who are experiencing financial distress
- The Women's Centre, which provides resources and support of gender equality on campus
- The International Students Connection which exists to create a sense of community for international students and to explore what Canada has to offer
- Campus Response Team which gives first aid support during on-campus events and for students to hone their first aid skills
- Off Campus Dons, which aims to foster a sense of community for off-campus first year students
- Finally, the UW Sustainability Project which promotes sustainability and environmental friendly practices on campus.

If you are interested in getting more information on any of these services, check out feds.ca and click on 'Businesses and Services'.

Finally, for those of you who are looking to get involved, a number of commissioner positions are currently accepting applications. Positions currently available include: Academic Commissioner, Government Affairs Commissioner, Municipal Affairs Commissioner, Arts Commissioner and First Year Commissioner. Commissioners report directly to FedS exec members, and are comparable to an "exec-lite" role. It is a large time commitment; however the positions do have a great deal of responsibility. Applications are due AUGUST 2! If you want more information on each role, go to feds.ca, click on "Info", and view the volunteer positions currently available.

If you have any questions or concerns, please don't hesitate to contact me at t.ek.jenkins@gmail. Otherwise, good luck with exams and see you all in the winter!

ENGINEERING SOCIETY EXECUTIVE REPORTS

Presidential Report

SCOTT RANKIN
PRESIDENT

Dear Students,

I have been reading the Engineering Society satisfaction surveys that most engineering students filled out, and I would have to say that it's really helping. Most of you probably thought as you filled it out "What is the point of this," "I can't answer this," or "I don't know what they do." This is exactly what I want to know! This is what is helping.

Many students have written that we need to improve our advertising, inclusivity, and our image. I'm trying to drastically improve this. Owen Coutts, the EngSoc Speaker, and I decided to do an overhaul on the organization of council meetings and they are slowly improving. We have some ideas to improve our advertising, and I feel as though we've done a great job improving our image towards other faculties (one of my goals for the term). Now I think I need to concentrate on improving the image internally.

Another point I noticed in the surveys was the comment that "EngSoc needs to run less drinking focused events." This comment was written numerous times. This is actually very untrue, as EngSoc runs no drinking focused events at all, and I feel as though many students are confusing us with the Graduation Committee (GradComm). To clear things up I'm going to layout some differences between the two below.

If you have any questions about how GradComm is run, or have any suggestions for the committee, don't hesitate to email the GradComm chairs (Noel McGregor, Kirsten Hoedlmoser, Nadine Ferguson, and Jessica Friesen) at gradcomm2011@gmail.com.

Thanks,
Scott

The Difference Between Engsoc and GradComm

EngSoc

The Engineering Society mandate is to:Officially represents the interests of, and advocate on behalf of all Waterloo engineering students to the faculty, university and beyond.

Provide services to the students to improve student life, both socially and academically.

Events:
-Semi Formal
-Waterloo Engineering Competition
-Genius Bowl Trivia Competition
-Engineering Talent Show (TalEng)
-Engineering Play (EngPlay)

Services:
-Coffee & Donut Shop (C&D)
-Exam Bank
-Report Binding
-Resume Critiques

GradComm

The Graduation Committee mandate is to:Fundraise money in order to host graduating class events, including the Iron Ring Stag and GradBall.

Provide an avenue for lower years to meet upper year and graduating students

Events:
-Pub Crawls
-Brick Brewery Tours
-Bingo
-Special Bus Trips
-GradBall

Services:
-Pizza Sales at Lunch
-50/50 Draws
-Yearbook design
-Graduation Photographer

VP Internal Report

PETER KELLY
VP INTERNAL

Well Waterloo Engineers, the time has come. In just 1 week's time this term will come to a close and everyone will begin the frantic panicking that is known as studying for finals. I have had a blast this term and would like to once again thank all of my directors as well as my fellow exec for all of their hard work.

If you would like to get involved apply to be a director for the Winter 2011 term. Applications are open now and close on the 28th. It's a great way to have fun and meet new people.

Apply here: http://engsoc.uwaterloo.ca/directors/application-form

Finally EOT (End of Term Party) is this Friday in POETS at 9:00pm so come on out for a fun night with friends to celebrate another term down.

VP Finance Report

MINA LABIB
VP FINANCE

Hello everyone and welcome to my final report as VPF,

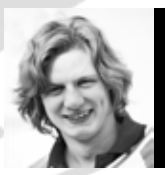
First, let's take care of business. I am currently trying to close all director budgets as the term is coming to an end, so if any of you have receipts that you have not yet submitted, then please do so. Also, if you are no longer require any more funds from your budget, please tell me so I know and can possibly use that money to help other directors that have gone over budget. Right now, we look like we are going to end up about $3000 under budget (that is ~$1000 in the black). I doubt this is truly where we are at, so please submit receipts ASAP so I can get final numbers sooner rather than later, and all you lovely EngSoc members can be informed.

I would also like to thank all the lovely directors that were amazing at getting me budgets on time. Everyone was awesome at discussing their requirements with me when needed so I could fit everyone into the budget. I tried supplying previous budget information to new directors to help them figure out how much money they need, and my goal over the coop term is to compile the spending information from this term and previous terms in order to include it in a budgeting guide for new directors.

That is all I have to report from finances, so I would like to thank everyone for making this a great experience for me. As exec, I was able to see another side of the Engineering Society and I would like to convey a message to all readers. Exec members are students just like everyone else here, and aren't super students, and don't get breaks from school work to do what they do, and yet still try their hardest to maintain this juggling act. I have also seen that, perhaps, our biggest weakness is our advertising. It truly is difficult advertising events and services when our generation is so desensitized to advertising, and it is easy to be lazy about it when no-one seems to acknowledge any form of publicity. So all I ask is, while we try to figure out better ways to get information out there, if you want to know what's going on, just ask. Anyone involved in the Engineering Society would love to tell you all about what is happening.

Arrivederci,
Mina

VP Education Report



ALEX HOGEVEEN RUTTER
VP EDUCATION

The administration is continuing to implement the recommendations of the first-year task force to help students succeed. If you have any additional suggestions or ideas, feel free to contribute at http://engsoc.uwaterloo.ca/forum/2

I've had a few meeting with Co-op and Career Services of late. One issue I've been trying to push is accommodating students who find work outside the Jobmine process, especially in times of recession. I'm also looking for ideas about how to improve CECS, in terms of marketing students to employers, designing Waterloo Works and improving field coordinators. Drop me a line at bsoc.vped@gmail.com if you have any ideas.

WatPD Engineering-passed Engineering Faculty Council (Stage 3/5) unanimously, and we are still optimistic the administration will break their rules to have it pass the remaining two stages for January.

As I really have no new information about the WatPD electives, I would refer students to the WatPD Office and website for more information. If all goes well, students will choose in October or November through Quest which course (PD Eng or one of WatPD 3-7) they wish to take in January 2011 (for those with a co-op then). A reminder that existing students must still complete 4 work term reports to graduate.

The implementation of WatPD 20 for the class of 2015 has passed its first milestone. Pending sufficient development over the summer in time for the next design review in early September, the course will be sent to the Centre for Extended Learning for online development in the fall.

POTLUCK ENGSOC MEETING TONIGHT!
JULY 21, 5:30 P.M.
POETS, CPH 1337

Upcoming Events Calendar

Wednesday July 21 Charity Purpling EngSoc Meeting 5:30 POETS	**Thursday July 22**	**Friday July 23** Jazz Band Charity Gig 6 PM Waterloo Town Square EOT, 9PM POETS	**Saturday July 24**	**Sunday July 25**	**Monday July 26** Engsoc Hockey, 7PM CIF	**Tuesday July 27**	**Check out up-to-the-day event postings on the EngSoc website at engsoc.uwaterloo.ca**
Wednesday July 28 Major Mark Gasparotto Speech POETS, 5PM	**Thursday July 29** STUDY	**Friday July 30** STUDY	**Saturday July 31** STUDY	**Sunday August 1** STUDY	**Monday August 2** STUDY	**Tuesday August 3** EXAMS	

ENGINEERING SOCIETY EXECUTIVE REPORTS

VP External Report

KEVIN LING
VP EXTERNAL

It's time for another bi-weekly exec update! I feel that I haven't quite been giving enough detail about what the Engineering Student Societies' Council of Ontario is and does, so in this issue I want to go a bit more into depth on what ESSCO has been up to in the past year and what they have planned.

As many of you may know, I attended the ESSCO Annual General Meeting (AGM) back at the end of June. Apart from the great speakers that I mentioned were present at the conference, the conference presents itself as an opportunity to get new students involved as well as to wrap up (and debrief) all the old business from the previous year as we welcome a new set of ESSCO executives. The major projects that ESSCO worked on in the past year are the ESSCO Alumni Network, the ESSCO National Engineering Month (NEM) Rube Goldberg Project, the EcoFair, and the Lobbying Issues Action Committee's (LIAC) report on Stress in Engineering.

One of the major initiatives that former ESSCO president and UW student (Spencer McEwan) undertook was establishing an Alumni Network for ESSCO. The goal of this is mainly just to keep in touch with former members, since they could potentially be a great resource for the ESSCO Executives and Project Directors. While ESSCO fell short of its goal to recruit 100 alumni members to its Alumni Network by this year's AGM, the network is well underway with 31 members so far.

Another great initiative started by ESSCO this year, in partnership with the Ontario Science Centre, is the Rube Goldberg Project to celebrate the National Engineering Month. The project was led by Alessia Danelon (current president of ESSCO, formerly the VP Services, and also a UW student). The event serves as one of the methods through which ESSCO reaches out to the community in an effort to promote the Engineering Profession and instil interest for the profession among high school students and young children. For those of you who don't know, the event had universities all across the province working together to create one huge Rube Goldberg machine. Each school built their own machine, which would then send a signal to another school's machine via the Internet or text messaging. At the end of the chain, there was a final machine at the Ontario Science Centre which lit up a large LED sign saying "E4TW", which stands for "Engineers for the World". This event gathered a fair amount of media attention and even caught the eye of the Discovery Channel. After this year's initial success, ESSCO is hoping to run the NEM Rube Goldberg project again next year. The event usually takes place in March, with plenty of planning going on a head of time. Come the next B-Soc term (Winter 2011), I will be looking for students who are interested in building Waterloo's Rube Goldberg Machine, so please drop me a line if you are interested.

Further on the outreach front, ESSCO attempted a new initiative this year called the EcoFair. The event is like a mini engineering competition for high school students. This will give them a taste of some of the design projects that they might be exposed to if they enter undergraduate engineering. Unfortunately, the event was not able to run since many of the high school teams dropped out at the last minute, but I am optimistic that the idea will be revisited in the future.

Personally, I think that ESSCO is doing some great work on behalf of engineering students in Ontario. While I know many students in our faculty feel that all this outreach work is useless, I disagree. One thing that I have heard over and over is that when a doctor makes a mistake, one patient dies. But when an engineer makes a mistake, hundreds can die. Our profession is an important one, and outreach is a way for us to show the public what we really do, who we are, and what we stand for. ESSCO is helping to put our name out there so people know that engineers are working to better society.

With that said, ESSCO also has initiatives which bring more direct benefits to you, the students. Each year, ESSCO appoints a Lobbying Issues Action Committee (LIAC) to study a particular topic, and create a report on it. This past year, ESSCO ran a study on stress levels in engineering. The study is a year long process, in which the committee gathers information and then creates a report on the topic. The report is then presented to the Council of Ontario Deans of Engineering, which includes our own Dean Sedra. As a combined group of all the engineering schools in Ontario, ESSCO has a much stronger voice than one school on its own and has the power to actually influence academic administrations to bring about change. The current study on Stress Levels in Engineering is taking a bit longer than expected, so it is not quite ready yet, but ESSCO is currently looking for a topic to study over the course of the next year. Please let me know if you know of any pressing issues related to engineering students. ESSCO also has plans to raise the issue of high tuition fees for engineering students to MPs and other individuals and organizations that can help us curb the problem.

In general, the purpose of ESSCO is three fold. ESSCO represents the interests of Ontario engineering students. ESSCO performs outreach work to inform the general public about engineering in Canada. And ESSCO helps engineering student societies to better themselves. Every time members from our Engineering Society attend an ESSCO conference, they come back with many new ideas on how to improve our own EngSoc.

One thing that I forgot to mention at the last council meeting is that ESSCO has passed the motion to mandate it to create an engineering newspaper exchange. You should expect to see something on that front soon enough. In the meantime though, McGill has been kind enough to send us a few copies of their Technologic magazine. We should still have a few copies in the EngSoc office if you're interested.

I hope this gives a bit more insight into why I go to conferences and what external organizations do for you. If you ever want to chat it about it some more, just stop me if you see me in the halls.

WEEF Director Report

GRAHAM STONEBRIDGE
WEEF DIRECTOR

WEEF's Funding Council met on July 5th to decide where $60,000 would be allocated this term. The meeting went surprisingly smoothly and the final decision was made in a very reasonable two hours. As usual, there were some disagreements between your class's WEEF reps, but these conflicting opinions were necessary to ensure we made the best decisions possible. The attached table outlines the Funding Council's decisions for the spring term.

If you would like to discuss any of the amounts allocated and why the funding council made the decisions they did, I would be more than happy to meet with you or discuss your concerns via email. Please keep in mind that funding council had some tough decisions to make this term as a total of $380,132.81 was requested and only $60,000 was available to allocate.

I encourage all recipients of funding to spend their allocations as soon as possible while still being prudent and sensible. This will ensure that the impacts of our funding decisions are felt by students immediately.

My main focus as WEEF Director this term was to keep the Foundation on the right track as we move through this period of economic turbulence. Some of the decisions made by the Board of Directors this term include our deferral of 2010/2011's E5 payment and the spending limit of $60,000 for each term until next spring. I would like to thank Barbara Blundon- the Faculty's Financial Officer – for helping me assemble relevant financial information and for providing insight into WEEF's "health".

I would also like to thank this term's Assistant Directors for all their help with our 20th Year Celebrations and other logistical work. Andrew, Cailin, Kal and Laurin – you guys have been a great help and I am grateful for your enthusiasm!

This fall term will see Praveen Arichandran as the on-stream Director. Praveen has a bunch of initiatives planned for WEEF and I look forward to seeing the outcome of his deliberations

Best of luck on finals, and if you're feeling lonely, just remember that WEEF loves you.

See you in the Winter,
Graham

Proposal	Requested	Allocated
Architecture		
Dimension SST 1200es 3D Printer	$ 33,400.00	$ 8,000.00
Air Cleaners	$ 1,300.00	$ -
Canon VIXIA HF M31 and Equipment	$ 6,000.00	$ -
Chemical Engineering		
Chemical Engineering Computer Aided Teaching Room Computer Upgrades	$ 19,136.55	$ 4,000.00
Fluidization And Fluid Bed Heat Transfer Unit.	$ 14,196.00	$ -
Civil and Environmental Engineering		
Envrironmental Field Samplers	$ 2,248.00	$ 1,686.00
Electrical and Computer Engineering		
Coulomb's Law Apparatus	$ 4,123.00	$ 500.00
E&CE Linux Cluster Upgrade	$ 1,480.00	$ 560.00
E&CE Laboratory Monitor Upgrade	$ 3,800.00	$ -
E&CE Nexus Computer Upgrade	$ 4,750.00	$ 4,750.00
E&CE Coldfire Server Upgrade	$ 2,000.00	$ 2,000.00
High-Performance, User-Friendly Simulation Package For Power Electronic Circuits	$ 11,700.00	$ -
Power - Control Electronics - Additional Equipment to complete three stations	$ 22,870.00	$ -
Mechanical and Mechatronics Engineering		
New Mme Undergrad Lab	$ 68,800.00	$ 8,000.00
Fred Church Lab Computer Upgrade	$ 16,100.00	$ -
3-D Printer For Mechanical And Mechatronics 3rd And 4th Year Design Courses	$ 26,175.00	$ -
Management Engineering		
Hands-On Empirical Analysis Of Algorithms With A Real World Professional Profiler	$ 3,477.00	$ 3,477.00
Systems Design Engineering		
Tools For Systems Design Undergraduate Teaching Lab	$ 1,200.00	$ 600.00
MISC		
Computers for WEEF Laboratory	$ 51,000.00	$ 13,227.00
Student Teams		
Engineering Jazz Band	$ 1,325.00	$ -
Engineering Orientation	$ 1,125.00	$ 911.26
IEEE Humanoid Robotics Team	$ 8,780.00	$ 750.00
Rover	$ 3,800.00	$ 1,000.00
Nanorobotics	$ 1,995.00	$ 800.00
UWSTART	$ 7,430.00	$ 700.00
UWIRE	$ 7,490.52	$ -
WARG	$ 2,695.00	$ 588.99
Midnight Sun	$ 4,300.00	$ 1,000.00
UWAFT	$ 8,685.00	$ 1,000.00
FSAE	$ 3,050.00	$ 650.00
iGEM	$ 157.75	$ 157.75
Micro-Aerial Robotics	$ 6,100.00	$ 800.00
Clean Snowmobile	$ 10,950.00	$ 650.00
Iron Warrior	$ 242.00	$ 242.00
Rocketry	$ 3,950.00	$ 800.00
Robotics	$ 4,601.99	$ 1,500.00
WatSat	$ 4,050.00	$ 500.00
WOMBAT	$ 3,400.00	$ 400.00
UW ASIC - AllSparc	$ 2,250.00	$ 750.00
Departments Total	**$ 293,755.55**	**$ 46,800.00**
Student Teams Total	**$ 86,377.26**	**$ 13,200.00**
Grand Total	**$ 380,132.81**	**$ 60,000.00**

THE IRON WARRIOR Magazine
Monday, June 13, 1994 The Magazine of the University of Waterloo Engineering Society Issue #2

From The Iron Archives

AMRITA YASIN
3T CHEMICAL

July 27, 2005 – Spring Issue 5

In this issue Edward Ho, a mechanical engineering student wrote an article titled "The inflexibility of engineering education". This article basically talks about the lack of choice in the courses that engineering students take and the course load itself.

While the CEAB requirements ask for an average course load of 5 courses per term, mechanical engineering often has 6 courses. According to Edward, such a heavy load and rigid course requirements does not leave students with enough time for extra-curricular activities and/or the freedom to take courses from other disciplines, or as he puts it, "There is restricted opportunity for people to be well-rounded". Edward goes on to compare the different engineering and then conducts an in depth analysis of the mechanical engineering curriculum, stating that the required courses in the upper years do not align well with the job market and "the student winds up taking courses in areas he/she will never use and has no interest in".

Edward then discusses the mechanical engineering an systems design curriculum approach at University of Toronto; students have mandatory introductory courses in earlier years and partway through third year they are allowed to choose the subfield they want to specialize in. "I emphasize this importance of being able to choose: It is being able to choose that would allow students within each discipline to distinguish themselves from each other and be able to study what they enjoy. And, … would allow engineers to pursue non-engineering academic ventures."

Once again focusing on mechanical engineering, Edward states that for people wishing to do an option or a minor, to avoid 7 courses during a study term they take courses during their coop terms for which they have to pay extra fees, or sometimes just drop the option. Also due to the heavy course load students tend to take "bird" courses for their CSEs which is not a positive learning attitude.

Edward also argues that enrichment of individuals was one of the selling points and also a requirement of UW's recruitment. At school, students have to sacrifice their school work to get involved in design teams and other such clubs and that the heavy course load has deterred many students from pursuing non academic activities.

May 23rd 1995 – Issue 1

In this issue Axel Noriega wrote an editorial on the society's obsession with time. He starts out by saying that time is the "last barrier that we have not and will not break". He first describes man's obsession with time by asking how many of us give ourselves a deadline to meet goals, "What is the point of rushing through life, when we have only one life?"

According to Axel, this rush of achievement and spending every moment in a precisely defined productive manner has been inherited from previous generations. The author again poses the question as to why does this generation have to conform to that attitude and why can't it make an effort to lead a simple and respectful life rather than stepping on others to get ahead of them.

Axel argues that this rush of getting somewhere in life and using time as a benchmark has reduced human beings to machines with no feeling, thinking, and emotions. Comparing the lives of adults to kids who are not worried about the passage of time he blames the need to rush through time for a loss of purity and innocence.

The author shifts his focus to the 'third world' or underdeveloped countries and says, "their simple lives and inattention to time have given them a side of life that many of us have never experienced…their friendliness, openness and honestly is due to their relaxed styles of life." And then Axel goes on to analyze the life of people here and questions if competing for a career and high standard of life is even worth the effort if people don't have time to enjoy their achievements. The end of the article poses another question as to how long will it be before the so called 'third world' countries also start getting influenced by technology and ambition?

July 7th 1989 – Issue #4

Andrew Reeves-Hall wrote an article on "Artificial Intelligence And Supercomputers". Andrew starts by stating that artificial intelligence has no definite definition and cannot have one until it is decided whether the related issues are hardware, technological or conceptual in nature. He switches gears to supercomputer programming stating that the programming was written in COBOL, Pascal and FORTRAN , all of which pose difficult, practical issues for programmers.

According to Andrew, "Supercomputers raise the possibility for technological applications that are both extraordinarily beneficial and exceptionally frightening and negative". He further states that if the data-storing and processing ability of supercomputers is combined with artificial intelligence in the future," these systems could be used as an apparatus of a totalitarian state and have dramatic implications for the personal privacy of individuals within society". Strange how an issue that disturbed a student some 20 years ago doesn't bother us too much when we put a new album on facebook every week.

Andrew expands on his previous argument stating that the potential for abuse of information lies with the people and not the technology itself. Education and government regulation should be used to determine a trade-off between the benefits of this technology and need to protect individual privacy.

As far as artificial intelligence is concerned, such systems will reflect the behavior of their developers. Computer programmers usually are less social and more logical, and hence the systems developed by them will not represent an average individual. Such systems also have negative implication for human interaction and social cohesion. Andrew raises the question if it is pursue advancement in this field, "Technology cannot be reversed; its direction and strength can and must be manipulated and managed".

Highly developed artificial intelligence systems will also bring about issues of justice and ethics. Andrew presents the example of medical diagnostic systems; in the long run the rich might visit human doctors while the poor will be subject to treatment by these diagnostic machines. Another aspect to keep track of is the environmental impact of computer systems. Computer chips and other equipment such as stereos, VCRs etc use gallium arsenide, screens have phosphorus in them and circuit boards are cleaned by CFCs, all of which are harmful to human health and the environment.

Moreover, supercomputers and artificial intelligence should be strictly used for civilian applications and not for military use where most of the interest and research is actually coming from. The author puts the onus on scientists and researchers of being responsible with what they are developing – an idea that is completely ignored today.

July 1985 - Issue #4

Michele Chin authored a very insightful article titled "Genetic Engineering: Its Moral Impact". Michele jumps into the core issue right away by saying that "it could save the world, but it also contains selfish purposes that could destroy it". the morality dealing with the related issues should progress as quickly as the technology because if it is something that can be done, chances are that it will be done.

Michele talks about the various benefits of this technology, such as medicine to eradicate genetically inherent diseases, cures for cellular disorders, production of antibiotics, hormones, and medication in large quantities and cloning to replace organ transplants. Other benefits include pollution control, agricultural needs, and environmental repair.

Michele then moves the focus to the negative implications of genetic engineering, the foremost of which is exploitation of human beings. Elaborating on this aspect, Michele discusses "made-to-order humans" as the latest controversy of the time saying, "These traits could depict irrational values that could be subject to change as readily as 'fads'. Sexual inequality would be reinforced if it was possible to choose the 'desired' sex. Genetic engineering can be commercially exploited to meet public demand and ever changing values." Moreover, a full appreciation of its consequences cannot be foreseen due to lack of complete knowledge.

According to Michele, the biggest fear that moralists have is that genetic engineering has a snowaballing effect. They also argue that the research in this field has no clear objectives and goals and that the scientists and the researchers working in this field aren't accountable to anyone.

Having discusses the moral and ethical sophistications of this technology, Michele still argues that prohibition is not the solution. Instead rules and guidelines should be put in place to contain biological and physical advancements in genetic engineering. And that the guidelines must be drafted by people belonging to science and ethics and be acceptable to the society. Michele stresses the fact that genetic engineering is something that lies in the realm of possibilities and sooner and later it will be realized it is a matter of how to do it safely and morally.

She ends her article by stating, "Genetic engineering is the final frontier of world technology, requiring a genetic code of ethics, not the cloudy moral dilemma facing most scientists today."

THE TIN SOLDIER

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Failure Rates to Sky-Rocket *Page$_2$0011*

David Johnston's New Vision For Canada *Page$_2$0100*

James Cameron: Wat3D Engineering *Page$_2$0111*

The paper your Imprint could smell like.

Doping scandal hits WEC; OEC Team Suspended

Shocking scandal of Waterloo's premier engineering competition exposed!

THE TIN SOLDIER
NEWS BUREAU

Following the recent steroid scandal with the Waterloo Warriors Football Team, the University administration has started a campus-wide initiative to crack down on the usage of banned substances in all University activities. What was expected to be an exercise of due diligence exploded into a mushroom could of catastrophe this past weekend as several teams were disqualified from the Waterloo Engineering Competition after testing positive for numerous banned substances.

The commotion started during the Junior and Senior Team design competitions. These events of WEC are known for their high demand of creativity and mental stamina. Eyebrows were raised as one team in the Junior division was noticed to be hiding in the corner giggling endlessly and stuffing their faces with several extra-large pizzas and jumbo bags of Doritos. They were later noticed to be haphazardly gluing their materials together while whispers of, "Dude, we're building a robot," and snickering from all team members could be heard from across the room. The team was later disqualified after testing positive for marijuana.

In the Senior team division, while most teams spent time brainstorming and drawing out schematics for their respective designs, one team was noticed to be staring off into space and drawing on each other with scented magic markers in awe. Their final presentation consisted of them drawing rainbows on their presentation board and explaining their solution to the competition's problem through interpretive dance. They later all tested positive for LSD, which the team captain explained was 'meant to bring out their inner creativity.'

The commotion that was started in the design competition carried over into the consulting competition that started soon after. This division is known for consisting of an all-nighter during which an engineering report must be written and submitted with an accompanying presen-

See SCANDAL on Page 3

Shallow DOF

Some of the banned substances found on the competition day are pictured above.

Protests Erupt After New 1A Policy Announcement

PURPLED PROTESTOR
3A ANARCHY

Protests erupted in the engineering buildings after the new 1A policy was announced to students. For those of you who are not familiar with the new policy (or living under a rock), here's some background. The 50% passing average will be raised to 60%, however students who realize they're struggling will be allowed to drop two non core courses and make those up during a special period where they will re-take the two courses and a special study skills workshop. The penalty being they will need to be held back a term.

As mentioned, students, past, present, and future, were up in arms about this proposed change. Many people expressed that students need to be forced into the University lifestyle. "How do you expect them to learn how to deal with the great lifestyle change that is University, without them actually experiencing it first hand!," exclaimed a masked protestor. Many spoke about how University was a big change where they needed to learn about how to study and balance their lifestyle and having the 50% pass bar was a great help for the transition. The protest which occurred last weekend quickly became violent when a group of protesters broke away from the protest and rampaged down the E2 hallways ripping posters off bulletin boards and setting custodian floor sweeping machines on fire.

Although campus media portrayed these protesters as members of a breakaway anarchist group, the purple block, many questioned if these sweeping machines were abandoned purposely and set on fire by Agent Provocateurs and left to smolder for over a half hour before campus police arrived with fire extinguishers to put out the barely lit embers.

In response to this violent event, students are demanding transparency and change from the University administration. Many groups have asked for additional resources be added to helps students get through first year, a few which we have compiled below.

Nap Time

One group of students would like to

See NAP TIME on Page 3

Dean's Office Releases Vision 2011 Plan

WRITE O'HOLIC
2B FERMENTATION

Following the fire that destroyed the Mel's Plaza this past winter term, the Dean's Office has decided to lend a hand in planning the future of the local businesses affected by the fire. The Office has recently unveiled the plan for the plaza entitled 'Vision 2011' and it outlines some new, groundbreaking ideas on how to get these local businesses back on their feet. The following outlines some of the key ideas proposed for some of Waterloo's most iconic businesses.

Mel's Diner

Students both in Waterloo and on co-op were struck hard with the news that the fire destroyed the ever-loved Mel's diner. In the interest of getting the iconic restaurant back up and running as soon as possible, the diner will be turned into a new-age outdoor eatery experience. The iconic 1950's tile floor, being the only part unaffected by the fire, will be kept but in order to minimize construction time, the booths and bar area that previously made up the restaurant will be replaced with patio furniture and picnic blankets. The new kitchen, which will consist of several barbeques and a pot of boiling water over an open fire, will be enclosed by a white picket fence in the back of the restaurant area as it was before. The colourful jukebox that used to fill the diner with classic rock and roll tunes will be replaced by a boombox found at a garage sale. The only tunes available will now be restricted to the mix CD consisting of mostly backstreet boys and pre-head shaving Britney Spears songs that is already in the player and cannot be changed since the CD-player has been melted shut. This new unconventional image is not expected to negatively effect business as the Diner will still be offering it's classic hangover breakfast selections at all hours during weekends, or at least until the first snowfall hits.

See VISION 2011 on Page 3

Men are People Too

ALEXO HOGEVEEN
DUTCHIN IT 2112 STYLE

As part of the ongoing efforts of the VP External, the IW is exchanging articles with its counterpart in parallel universe MHECB-997. In this universe, the Tin Soldier is the official newspaper of the engineering society, and society is, well… different. Prominent masculinist Alexo Hogeveen has offered this article on the troubles plaguing society he knows.

Firstly, I would like to thank editor Angela Smithington for allowing me to write in the prestigious and female-dominated Tin Soldier. The 'rougher sex,' as we are called, has been silenced far too long and it is incumbent for this bastion of impartiality to ring loud and clear this call for equality.

We men have made significant gains in recent years, notably winning the right to vote in most jurisdictions of Canada (with the noteworthy exception of ultra-conservative Quebec). However, the stigmatization that men are not qualified to vote and should merely echo the views of their mothers or wives is not as easily changed, and we must work to encourage men to think and vote independently for ourselves. Furthermore, I dream of a day where men serve as elected members of parliament, perhaps even as cabinet ministers or premier of Ontario. It may seem a crazy dream right now, but with the right attitude, anything is possible.

Changing the attitudes of the greater sex will not be easy. We have been looked down upon and oppressed for far too long. Equal pay for equal work legislation is a step in the right direction, but pay rates for men remain a fraction that of women. This is partly due to more invisible discrimination where men are, in fact, capable of doing the same work but are given positions of less responsibility, thereby circumventing 'equal pay for equal work' regulations. Furthermore, the 'iron ceiling' in such high-paying professions as medicine and education loom large, with men facing adversity from the entrenched establishment. Though men have made inroads in areas such as finance and engineering, we must continually strive to seek equality in the nobler (and therefore high-paying) professions as well.

There are many simple cultural measures which must be propagated for the changes we need to take effect. For example, the male birth control pill has helped remove the stigma associated with unwanted impregnation, yet men still do not feel in control of our bodies. We are socially pressured to cater to the whims of the dominant gender, and though we may be de jure in control of our bodies, we often find ourselves powerless to make this known. For example, the tight, long pants we are encouraged to wear often stifle our sense of expression. And yet, if we wear shorts of kilts to cool ourselves in summer, we are ogled and stigmatized as 'loose'. Until we can wear what we want without fear of reprisal, our bodies are not truly our own.

Stereotypes about clumsiness, laziness, and general ineptitude continue to persist. At a recent interview, I was incensed to be told I didn't have to ovaries to compete in "a women's world." When will employers and other institutions look past our gender to focus on our individual skills and attributes? Often it is less explicit, being told we are simply 'not right' for a job or promotion and attacking the root of this discrimination, not just its overt forms, is necessary for this to change.

This is a pull-quote that is not related to any article and has no meaning whatsoever. Ignore this pull-quote, it's only to fill white-space, and 99% of the time, it's the reason we use them. However, this time, I made the font bigger because I couldn't find more to write about pull-quotes.

Matriarchal society is not limited to the workplace but persists in the home. Even when men do find employment, they are still expected to return home, do the housework, cook a meal, and play the part of doting spouse upon their wives' arrival. While the institution of maternal leave has helped, the continued expectation for men to take paternity leave and perhaps leave the workforce permanently to take care of children persists. Only when men and women are expected to share equal burdens in the home can we expect them to contribute equally on the job.

Brother and sisters let us unite in a call for equality: Men are people too!

TIN SOLDIER DOESN'T RECOMMEND

ENG GIRL 101
1A,1B,2A,2B,3A,3B,4A,4B CHEMICAL

Significant Other
Arts Girlfriend

Yes there are more girls in Arts. And sure they are quite hot. But be warned. They can't do your homework for you the way an engineering girlfriend can. Or understand your insane ramblings about calculus and the horrors you faced in PDEng. You will also inevitably face long distance due to the co-op factor, which is no good. Besides, eventually all girls get old and ugly. So why not find a engineering girl now who can be your sugar mamma later?

BB FANBOI
ECE FTW!

Consumer Electronic
iPhone4

Why on Earth would I need one? I mean, if my signal is going to crash when I hold it properly because of the poorly designed ring antenna, what use is that? I will probably just fall and drop it, smashing it into a million pieces or just loose it at a bar eventually anyway. Besides, we have worked so hard on our T9 skills, do we have to let those go to waste? And really, let's face it. We just don't have enough money for that after tuition.

CRACK COCAINE
3A DRUGOLOGICAL

Addiction
Bubble Spinner

Yes, flash games are the best. They are probably the best way in the world to procrastinate. With the beauty of Bubble Spinner, you will subconsciously being to think in term of bubbles. Blue bubble, pink bubble... ooo, gumballs! And truly, there is nothing quite as satisfying as getting to that next level and beating your personal best. But it's just not worth it. Say no to procrastination and pass your finals! Getting back on the Bubble Spinner band wagon right before finals is a no-no. Trust us, just don't do it"

E5 Grand Opening Delayed

WHOOPS
GETTIN' FIRED

As anticipation builds for the official opening of E5, nothing has officially been released regarding the specific date on which the building will be opened for general student use. As a secret source has revealed to The Tin Soldier, the opening of the building is currently delayed indefinitely. The reason: the building itself cannot be opened. Literally.

Due to extreme time constraints set in place by government grants that were used to fund the construction of the building, a tight deadline was placed on the completion of E5 so as to remain eligible to receive the funding it so desperately needs. As a result the building was constructed using a 'design-build' method of construction, where the building was essentially designed as it was being built. Although this resulted in some positive results, such as the open concept of the building and the diverse capabilities of the seminar rooms, it also resulted in some epic failures.

The most distinct shortcoming is the fact that students will not be able to access the building due to the fact that the construction crew forgot to install exterior doors to the building. This coupled with the fact that the entire building is clad with 2" thick bulletproof plexiglass (which seemed like a great idea at the time) has made the building impossible to enter. As the deadline for the building's completion draws nearer, the construction crew has decided against attempts to change the building to make it more accessible as it would result in the loss of government funding. Instead, E5 will be changed from a functional building to an over-sized statue that will help improve the image of campus. As WEEF will still be required to make payments on the building, unfinished portions of the exterior will be covered with WEEF stickers so as to minimize decorating costs.

公告

刘溪
3A 环境工程

滑铁卢大学数学学院最近宣布，该学院将开始用中文授课。由于华语学生太多，讲英语的人越来越少。为了适应这一变化，数学学院院长做出了如下行政决定：所有英语教科书将被翻译成中文，任课教师将从今天起参加中文学习和培训。自2010年秋季学期起中文将逐步取代英语，成为学院教学的正式语言。

THE TIN SOLDIER

An underground movement of the willing and attractive.

The Editwhore
Angero Araimo

Assistant Editwhores
Caffeine Princess
7 Year Plan

Tetris Master
Write O'Holic

FIX MA SPELLIN'
Terranbly AbZerg
Noseably Scentsible

Fauxteux Shoppa's
The Kid Who Won't Leave

Mafia Intimidator
Tony Soares

The Tender of the Racks
7 Year Plan

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"Slaves" Writers
Write O'Holic
Anitch Bhooti
Caffeine Princess
7 Year Plan
Write O'Holic
The Insider
Purpled Protestor
Master Chief
Write O'Holic
Ace & Gary
Chad Sexington
Alexo Hogeveen
Write O'Holic

Contributors
Wayne Hsu
N.E.A.C.

Some balls really round
All the balls are big or small
Sometimes bounce around
- *Tony Soares, 3A Mafia*

OMG, ANOTHER PULLQUOTE!

Drum Circle 'Press-Conference' to be Held Next Week

From SCANDAL on Page 1

tation given the following day. The event is not unfamiliar to extra-large double-doubles and midnight campus pizza runs to help keep the contestants awake, but one team in particular was noticed to be unusually awake and focused. All four team members sat in a statuesque manner and stared at their respective computers while barely blinking. Over the course of the five hours allotted for the competition, not one of the four team members left their desk or stopped typing furiously. At the end of the allotted time, while each team submitted the typical 15-20 page report, the oddly behaving team submitted a 1,500-page report complete with hundreds of statistical graphs, pictures drawn in Microsoft paint, and quantum mechanics derivations. The team did not take any time to sleep that night before their presentation the next morning, during which they gave monotone descriptions on not only how to solve the proposed problem, but also the world energy crisis, how to stop global warming, seven new plans on how to stop the BP gulf oil spill, and how to make the best chocolate mint milkshake. The team was soon after disqualified after all four members tested positive for varying combinations of Ritalin and Adderall.

A drum circle press conference is expected to take place, BYOG

The catastrophe came to a climax during the debate portion of the competition in a public display of chaos that will not soon be forgotten. The event that is deemed as the nightmare of any person who fears public speaking got the better of one particular team, who's two members were known to be rather timid in nature and exceptionally fearful of public speaking. A friend of both team members recommended that they 'have a drink beforehand to calm their nerves'. The duo clearly took this advice too far, as the stench of alcohol that exuded from the both of them was noticed in the room minutes before they even arrived. Both of them were noted to be stumbling around the CPH foyer where the competition was being held, and they required the assistance of chairs in order to remain standing. When asked for rebuttals towards their opponents' points, the team's responses included such groundbreaking statements as, "That's what she said", "You know, if you wink really slowly at a cat it will wink back at you," and, "Occifer, I swear to drunk I'm not god." One of the team members delayed the competition for half an hour as he attempted to drunk-dial one of the judges. The team was disqualified after one member projectile vomited onto one of his opponents.

All of the members of these teams have gathered together in protest of their disqualifications. They will be holding a press-conference next week in form of a Drum Circle in the forest by Columbia Lake that is open to the public in hopes to persuade the administration to reverse their decisions. Only accredited campus media (The Tin Soldier) will be allowed at this event. They will also be starting a petition in the form of a Facebook group so as to gather support for their cause, as soon as one of them can find their computer.

Protestors Suggest Additional 1A Course Material

From NAP TIME on Page 1

include nap time into the first year curriculum. Many people have complained about having 5 hours of class a day but no real break to refresh their minds. As such, one group would like to convert the multimedia lab into having several hundred bunk beds so students can sleep between classes. Psychologists have questioned what will happen to these students once they begin working full time jobs.

Giant Ball Pit

Secondly, another group of students would like to turn the WEEF lab into a giant ball pit complete with bouncy castle. This will apparently teach students to collaborate effectively in digging tunnels to exit the room as well as be able to double bounce people into the ceiling.

Hand Holding Service

Thirdly, one group would also like first year students to be able to have someone to hold hands with while completing final exams. No word on whether a mother or father would take this position alongside their son or daughter.

Writings Skills Workshop

Lastly, another group wants to have a daily two hour class dedicated to writing about how they feel today. Apparently this group believes it will allow students to increase their writing abilities which has apparently lacked since the internet has invaded homes.

Although protestors presented interesting additions to the first year curriculum, none have actually addressed how to improve the passing rates of students which the new 1A policy is trying to do.

Massive Engineering Failure Rate Predicted for Spring 2010

TERRANBLY ABZERG!
3A BATTLENET

The Secret Society of Waterloo Engineering Statisticians predicts that the failure rate of this term will be unusually high due to the July 27th release of Starcraft II. In fact, *The Tin Soldier* was able to obtain an insider copy of the top secret document recently released on the failure predictions this term. The outlooks are grim. It appears that by employing all of their mathematical knowledge and psychic powers, the SSWES placed the passing rate of engineering students at 35% this term.

Of course, this includes the regular drop outs, failing students, and World of Warcraft players. However, Starcraft II might just make this the highest failing term ever. It is predicted in the top secret report that over 9000 students are predicted to fail. Out of those students, approximately 50% will be students of Korean descent. Even those who look remotely Korean will be brought down in this curve by the sheer stress of random associations.

So what exactly did this report say? Well, this report was even able to breakdown the student failure rates by discipline. Software and computer engineering are expecting a failure rate of 120%. No, this was not a typo. Offstream computer and software engineers will come back to campus in September to discover they have failed their previous term despite having passed already. Electrical engineers, unlike their comp eng brethrens, will be able to maintain a passing rate of 10%, so it's another normal term for them.

Could this be the cause for massive failure rates in engineering this term?

Mechanical engineers will mostly pass by building catapults that launch massive bombs, blowing up their own computers. Management engineers optimized their Starcraft II time with studying time using linear optimization models, ending up spending all of their time maximizing efficiencies. Mechatronics students managed to all pass by sheer strength of will to beat others in class rankings.

The systems engineers will be happy to finally dedicate an exam period to something specific, the chemicals will play to drown in their sorrows of not having coop jobs, and the nanos will attempt to miniaturize the game into a nanotechnology stapler. The civils will attempt to build the greatest city in the game despite the fact that it's not SimCity, and the enviros and geos are still questioning today what this Starcraft is.

All in all, the SSWES are rejoicing in the fact that with so many students failing out, the next year will be a very profitable year in tuition income. Maybe they can raise tuition some more to get extra profit. It's a definite possibility.

"Club Arson" Predicted to Appear Fall 2011

From VISION 2011 on Page 1

140 West

Work on the club formerly known as 140 West has already begun. As the club has suffered from fluctuations in attendance over the years, and has changed management hands several times, the Vision 2011 team has decided to continue this trend and take the club in an entirely new direction. Although minimal changes will be made to the interior and the day-to-day operations of the club, the venue will have its name changed to Cameo. As the name suggests, the club will make a very popular, but equally brief appearance on the Waterloo nightlife scene. This change is anticipated to bring forth a spike in the venue's popularity that will eventually fade by around Fall 2011, at which time the club will once again be renamed and rebranded. The anticipated name for the venue at that time is Club Arson.

Caesar's

Although this venue experienced minimal damage from the fire, it has been decided that resources are best spent in upholding the club's image as the always hot night spot in the plaza. An undisclosed amount of funds will be spent to assure that the line up to get in to the venue will continue to remain at least two hours long on Friday and Saturday nights. Doing so involves a variety of plans, including hiring stand in models and strategically placing mannequins so as to populate the line up night after night. As a result, minimal effort will go into fixing up the club itself. One of the workers assigned to repairing the interior of the venue commented, "Yeah, the inside got torn up pretty badly by the fire, but we figured it can all be patched up with a roll of duct tape and some spray paint, right?"

Sugar Mountain

A local entrepreneur has already taken the initiative of restoring the local candy stop. Just a matter of days after demolition of the plaza was completed and the barricades were removed, a man in a large trench coat was spotted parking a while panel van on the same spot formerly occupied by the candy store with 'Free Candy' crudely written in spray paint on the side of the vehicle. Although the area is more frequented by University students, the owner hopes to attract a 'much more youthful crowd' in the near future.

Math Pink Tie Switches to Engineering

THE INSIDER
3.5X NOT MATH

The Faculty of Math's coveted mascot, Pinky the Pink Tie, quietly changed his allegiances to Engineering earlier this month.

The six-foot tie, which has only been part of the math faculty for less than a year, was spotted earlier this month wearing a black hard hat and yielding a smaller version of the Tool. He was also seen assisting the Toolbearers to guard the Tool during Canada Day celebrations.

"As exciting as it is to have the tie on our side, I just can't believe it actually happened," said EngSoc Secretary Joe Collins. "I know mathies are an unspirited bunch, but I never thought it could get bad enough for them to lose their mascot."

MathSoc's VP Activities & Services Joyce Karel has declared war against the engineers who took the mathie mascot and pledged to get it back.

"We will do everything in our power to get Pinky back," Karel said. "We will investigate all avenues, including a mascot swap, to get our precious tie returned to where it belongs."

We were unable to confirm by press time whether or not math students had actually taken the Tool or if Karel was just bluffing.

It is unclear if Pinky willingly transferred between faculties or if there were other factors at play. There are rumours that the tie is enrolled in an ECE program, but that has not yet been confirmed. Attempts to contact him on the issue appear to have been ignored.

Wayne Hsu

Pink tie hanging out with President Scott Rankin shortly after defecting

David Johnston's New Vision for Canada

WRITE O'HOLIC
2B FERMENTATION

As Waterloo's current President David Johnston is set to take the role of Governor General on October 1st, rumors of his plans for his appointed term are already starting to surface. Just as Johnston changed the way our University advertises and represents itself, Johnston plans to revolutionize Canada's image as a whole.

The first step; our national flag. Our current flag has represented our country for 45 years now, and it's time for a face-lift. We need a new flag that is bold, innovative and risk taking. After what were undoubtedly months upon months of deep thought and soul searching, images have already started to leak of Johnston's proposed plan. The Tin Soldier has managed to find one of these images, which is displayed above. It doesn't stop with just our national flag however, each province will be forced to abandon their traditional flag, which will be replaced by a colour specifically selected to represent that particular province. Some of these province-colour combinations include a 'Nordiques Bleu' for Quebec, a lobster-red for Newfoundland, and a plant shade of green for British Columbia, which has been selected for undisclosed reasons.

The plan goes on to outline more innovative and unconventional ways to completely change the way Canada is perceived by the rest of the world; including changing the accompanying melody of our national anthem to the Star Wars theme and introducing a mandatory online professional development course for all federal members of parliament. Their biweekly assignments will be marked by sophomore poli-sci majors, and failing to complete these courses will result in their party requiring to resubmit a candidate for that constituency.

In collaboration with RIM, construction on additional UW and RIM campuses will begin on any and all available green space across the country. Children's playgrounds will also be equipped with beginner chemistry sets and science textbooks to encourage more children to go into science, engineering and technology.

Johnston will also work to have the 'Water Water Water, Loo Loo Loo' cheer recited every morning in public schools along with the national anthem. There are also rumors of Johnston re-introducing the two dollar bill, but with Mike Lazaridis' face gracing the front of the bill and 'In BBM We sTrust' adorning the back.

As there is no foreseen retaliation to the coloured flags that will be placed along the trans-Canada highway displaying the provincial colours and encouraging words such as 'collaborative', 'risk-taking', 'innovative' and 'groundbreaking' and the fool-proof campaign they represent, Johnston also plans to relocate his Governor General's office as well as the house of commons to a new parliament campus in the West Side of Dubai.

Engineering Fear Factor

CAFFEINE PRINCESS
3A HYPERLOGICAL ENGINEERING

Here is the challenge, reality stars. Lace up your runners. Put on your backpack. It's time to.... Survive a day in the life of an engineering student. Fear Factor style!

Your first challenge: Get ready for the day! Go!

Start with a shower. Use soap. Wash your hair. Deodorant up. Smell good? Win!

Next, have breakfast. No, coffee doesn't count as breakfast. No, yesterday's coffee also doesn't count as breakfast. Try a piece of fruit. Think healthy thoughts (ah!).

Your second challenge: Get to school for your exam!

Run to school, your bike got stolen and the bus is simply not coming to get you. But oh no, there is a giant goose in your path! Dodge the goose! Play chicken with the goose! Just get by this thing. Think Triwizard Tournament dragons here.

But wait! The goose got your cheat sheet! Your perfect, double sided 8.5 x 11 cheat sheet you stayed up until 4am working on for your lab exam today. No matter, it's a lost cause now. Keep going, you made it to campus!

But it's raining and the campus is flooded. The exterior of CPH is a swamp and RCH is impassable. Use your tunnel knowledge and find a way to MC. Did you figure it out? Win again!

Your third challenge: Survive class without coffee!

That's right. You have a three hour lecture. No coffee allowed. Stay awake!

No, the professor called on you to answer a question on the board. Complete your task! Wait... what did he ask again? Don't look stupid! Fake illness and run away? Oh, minus 1!

Your forth challenge: Have a productive afternoon!

This means no procrastinating. None. Whoa, do you feel that? That vortex drawing you in? Like a giant magnet pulling on your brain... how did I end up in POETS? Here is the most difficult challenge yet. You have 1 hour to complete your work report's technical resubmission in POETS. Must. Do. Work. Too many movies. Why did they have to play Magic School Bus and the Big Bang Theory now?!

Buckle down. Fight the urge to laugh. Focus, focus, focus. Oh, you just found a valid reference on Google books. Site it for yet another win!

Now... the final challenge!

A date. How on Earth did you get a date you asked? This is a reality TV show, don't ask questions.

Ask the girls name. You heard me correctly. Speak to a girl. Did you remember her name? No? Bad! Ask again, this time write it down. Now say something nice. "Wow, you look soooooo tired!" No, something nice! Okay fine, the "you are talking to me comment!" leaves you with a neutral score for now.

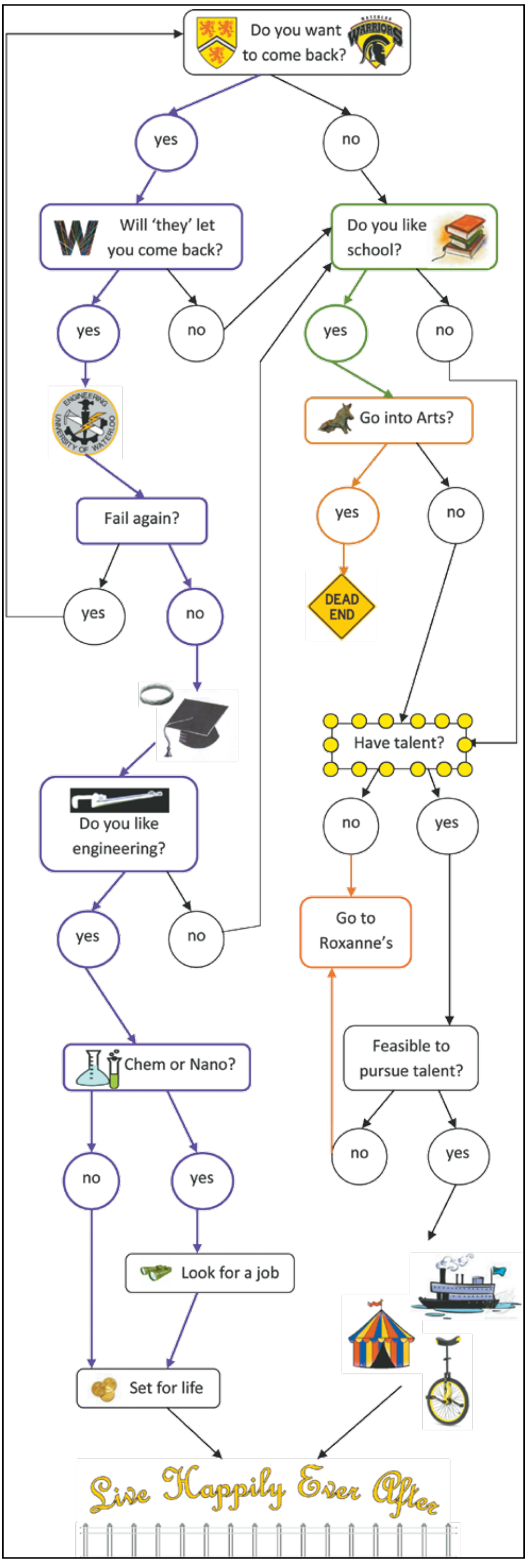
Now go to a restaurant. Open the door. Sit. Food. Yes, real metal cutlery, not cheap wooden chopsticks, far out! Conversation about school and friends... pass!

Loud music starts up, lights start flashing! And dance! Wow you have some awesome moves there! Ok, so you don't know any of the songs, but look at you go!

You win! The title of Engineering Fear Factor Champion is you! The prize? A 60.5% average. Bravo and see you next term!

McMaster's Iron Ring statue received a recent "upgrade" courtesy of N.E.A.C.

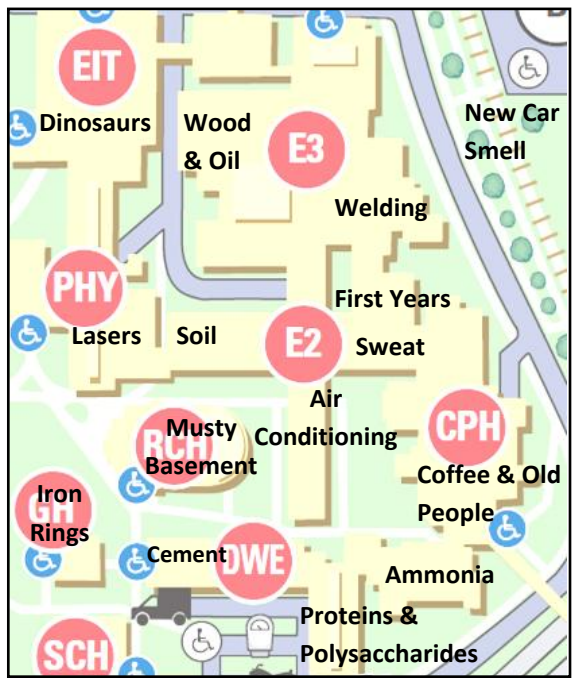
So You Failed the Term; A Flowchart to Sucess!



Exploring Engineering… With Your Nose!

NOSEABLY SCENTSIBLE
3A OLFACTORY WORKER

Anybody who was explored all of the engineering buildings know that each building has a very distinct smell. Want to know if you're in CPH or DWE? Just let go of that nose plug and breathe deep. Let the scent identifiers saturate your nose and you will immediately know where you are. Then again, for those not yet completely familiar with the engineering aromas yet, we have prepared this special smell-guide to direct you around the Engineering building labyrinth.



DWE, being the first building ever built for Waterloo engineers, will be the first building smelled in the expedition. Coming into the staircase, one will notice a slight odour of cement still leftover from construction. Exploring further in, a strong scent of ammonia will fill your nose parts. Despite the unpleasantness of the ammonia, DWE is one of the only buildings where a strong smell of sweat and lack of hygiene won't overwhelm you.

On the other hand, the sweat smell is strong with the building of E2. The hallways of the E2 smell like a window has not been cracked in over a decade. In addition, having plenty of computer labs for folks pulling long hours, the sweat effect just keeps multiplying over time. Combine this lovely combination of stale sweat smell with over-air conditioning, and we have the perfect mix of the Engineering Smell. It should also be noted that the WEEF lab excels beyond any imagination at producing the Engineering Smell.

E3 has too much masking the Engineering Smell. With all the machine shops, labs, and concrete, all you can smell in E3 is pretty much wood and oil. Honestly, after being in E2, wood and oil might as well be perfume. CPH, being the host of the C&D and Poets, of course, has the nice sections where some food scents could reach. Other than that, it mostly just smells like old people. RCH, finally, just smells like a musky basement. Maybe that's why engineers feel so at home there.

Overall, it appears that even though every building has its own scent to flood everyone's olfactory sense, there is an ever-present scent to comfort our noses. That, of course, is the scent of engineering.

CUM Conference Catastrophe!

CAFFEINE PRINCESS
3A HYPERLOGICAL ENGINEERING

Canadian Undergraduate Mathematics students travelled from across the country to attend the CUM Conference held at the University of Waterloo from July 6th to 10th. Little did they know what was in store for them ...

The first clue that something was amuck was the mysteriously dimmed lighting. Upon arriving to the third floor of MC, out-of-place red velvet curtains were visible, hung over their beloved Comfy Lounge, later to be renamed the CUM-fy lounge. After walking through the curtains, strange music became audible (bow-chicka-waow-wow).

This was one of the largest misunderstandings in the history of the University. Not since Water-Pew-Gate has a conspiracy like this transpired on campus. Actually, that pew logo should have been a big hint. Of course the strip club inspired branding was foreshadowing what was to "cum."

Really, the posters should have been a giveaway. Seemingly vandalized, the torn posters were actually intentional. "We did that on purpose to give them a more rugged look to attach an edgier crowd," says Hugh G. Rection, this year's conference organizer.

Upon entering the conference, the innocent mathies were shocked and appalled. Porn stars were all around them, as far as the eye could see. Imagine, MC just full of fake boobs and phallic imagery galore. As the stunned math student made their way through the scantily dressed crowd, they found the registration table. And, like at any good conference, they were able to pick up their delegate packages. Condoms of all varieties were included, as well as flavourful lubricants and the latest in dildo technology.

Upon speaking to Plant Ops after the conference in order to get a better idea of how this strange conference came to be on our campus, were learned that "everything went well, finished right on time but it was messy to clean up. "

2012 Approaches

So Now That the World is Ending...

CAFFEINE PRINCESS
3A HYPERLOGICAL

Let's face it, the world is ending. The predictions are true and now we know it. The apocalypse is coming and that's all there is to it.

Facts!

Global warming is happening. OK, so at first we definitely figured that this was a big joke. Al Gore wanted to appear smart and useful but still, a bit of a stretch to believe. And even if global warming was happening, hello longer summers? Yes!

Next was the big acid rain worry. Acid falling from the sky? Suuuuure.

And that power outage blackout in the summer of 2003 really did seem innocent enough. Little did we know that these were just small signs of what was to come.

More facts!

Hurricanes have been on the rise. We have needed to double up on the alphabet naming convention for the past few hurricane seasons. The hurricane seasons themselves are getting longer and longer. I mean hurricanes in December? This is getting ridiculous.

Avalanches, landslides and large scale flooding are also becoming more and more frequent. Can't we just go skiing in safety anymore?

And Venice is sinking, what is this?!?!?!

Let's not forget the tornado of 2009. Was anyone in Vaughn last summer to witness that crazy tornado business? The sky was a million shades of orange and green, accompanied by torrential rains and lightning. Scary times!

Large Tsunamis are also more common as after effects of large earthquakes propagate around the world. It's only a matter of time before San Francisco falls off into the Pacific to become just another piece of floating trash in that "Great Pacific Garbage Patch." Way to go people.

And since when does Ontario get earth quakes? I mean, it's Ontario! Have I not been learning about how dormant the fault lines are in Ontario my entire life? Also, what are those native to Ottawa supposed to do if they cannot make a phone call in the middle of a crisis? Clearly something is going on here.

Not to mention that huge Eyjafjallajökull Volcano in Iceland that spewed giant ash clouds, blanketing Europe and grounding air traffic. For weeks! Oh, the humanity!

If anything else is showing that the world truly is self destructing, it is that nightmarish BP incident. At the time of publication, this spill had just been capped, after 85 days of nonstop pollution. I mean, I know that BP's chief executive, Tony Hayward, clearly knows what he is talking about when is says that the spill is "tiny in relation to the total water volume" (he must have a solid science background right?)... but this does seem bad, no?

Essentially, all of these facts just go to show that the world is slowly destroying itself, from atmospheric malfunction right to the core of the planet's liquid hot magma.

Now I ask you, why get your degree? Sure, you 2011's out there who are almost done, go forth and get your degrees. You might still have a chance to work as an engineer in this world. However, I urge others to think carefully about what they plan to do before the 2012 apocalypse is upon us.

Might I offer some suggestions. Ooo, suggestions!

Road trips? Road trips! Vegas is always a good bet (avoid those Californian earthquakes – we already know that they will be the first to go). Thunder Bay would be a pretty epic road trip I hear. Plus you could stop at Science North in Sudbury. I mean, just because we have dropped out of engineering, we can still indulge our nerdy sides.

Or you can accompany me to the Harry Potter Deathly Hallows Part I premier in London this November (volcano permitting)!

Whatever you do, make the most of it. Because is sure seems like the world is coming to an end sometimes and there is a lot more out there than studying indoors.

Rock Around the Clock

Sexy Times with Chad Sexington!

CHAD SEXINGTON
4Z
MANGINEERING

Hello Sexy Readers!

Welcome to the final article of the term. I hope you all had a marvelous set of midterms and are getting ready for exams. I know I'm excited for September and a brand new term. It's time now for another installment of Sexy Times with Chad Sexington. This Issue: Time. Is there enough of it in the day? How can you maximize your time? And has anyone seen my keys?!

Time is a funny thing, the taste of it, the smell of it, the texture of it, the feeling you get when you spend a lot of it. I love time so much I even lost my watch in an unfortunate mishap with a grandfather clock. For one thing, it seems like there are never enough hours in the day. Does this happen to you? I'm sure it does. Ever notice that there isn't enough time for all the things you'd like to be doing, like sleeping, or sleeping, and sometimes sleeping? Alas, the 24 hour clock leaves much to be desired in fulfilling your daily dose of time for yourself, but never fear, let's do anything but waste more of it. It's time for Chad Sexington's top five time management tips. Allons-y!

1) Time Travel. Yes I know you've mastered moving at 1 second per second in the forward direction. But think of all the energy you could save if you could use each second for 2 things, or even 3? By travelling backwards in time (time machine not included) and working together with yourself, the two of you can optimize your task completion by doing multiple things at once, or helping each other with your homework assignments. Just don't get distracted by staring at yourself, since that can lead to a permanent paradox of attractiveness.

2) Do everything faster. This one is pretty simple, just do things twice as fast as you normally do. For example, by running everywhere you go, you'll save heaploads of time for yourself. Every second counts (twice if you do this right), so try using acronyms, abbreviations, writing every second word, eating every meal as though it's a competition, and driving like you're Mr. Schumacher to maximize your time consumption, because sooner or later the government's going to find ways to tax you on it.

3) Engage in boring situations. Nothing slows down time like a little bit of vector calculus or some 1850's literature. If you keep your textbooks open and in front of you all the time, and make a conscious effort to pretend to read them, every second will seem like an eternity. Think of all you could do with 86400 eternities! This point has a corollary of avoiding exciting times like parties and spending time with sexy people, as time moves twice as fast during those situations.

4) Eliminate the need to sleep. Just stop sleeping. Most of you are there already, why not quit entirely? Try it.

5) Cut back on your to-do lists and shorten action items to only the bare essentials. If you immediately cross off even 1 item on your current to-do list, you've just saved yourself five minutes of headache. Try it today, by not even making a list. You should find you have time for everything you've ever wanted to do.

~~6) See above.~~

Good luck on your exams my sexy readership. I hope that you are able to use these time mgmt tips (see, it works) to your best ability, and save yourself a lot of hardship this exam season. I know you'll all be the best that you can be.

Until next term,
Stay Sexy!

Games = Violence…No Really, It's True..

MASTER CHIEF
2B CIVILIZATION

For years gaming has been blamed by the media for many acts of violence by teens and adults, rarely with evidence of any kind to back it up. But that is about to change, as a new study is attempting to objectively measure the effects of gaming on the minds of children and youth.

This groundbreaking study consists of several different groups, some for control purposes and others playing different types of games for varying lengths of time. Through rigorous testing the cumulative effects of exposure to gaming can finally be measured.

Control Group – Subjects in this group were selected for the non-gaming "leave them alone" group. Members were identified as they passed the study office and quietly followed by private investigators over the course of the study. In order to avoid compromising the results participants were not informed of their participation, it was assumed they would agree, so their apartments, cars, and all personal possessions were investigated without their knowledge.

Over the course of the two year study, approximately 20 of the 1000 people observed in control group 1 purchased a video game system, and subsequently their levels of aggression and violence were seen to go up – some even resorting to murder of house flies. While this may seem trivial, the other 980 participants did not kill any houseflies – so it must be conclusive proof.

Gaming Group 1 – 1000 participants were provided with a video game system as well as a single game – Beautiful Katamari - to play for the next 2 years. The actual backgrounds and potential criminal records of test subjects were not investigated prior to the start of the test. As the test was conducted to measure the amount of damage done by gaming any prior criminal activity was deemed to be unconnected, after all, just because a person is a hardened criminal it doesn't mean they are necessarily more likely to commit a crime than a law-abiding citizen…right?

After the closure of the study due to lawsuits of stalking relating to control group 1, several interesting effects were seen in Gaming Group 1. Several participants painted their entire houses in bright colours and started speaking in high pitched voices – they were dismissed under suspicion of insanity. The vast majority of the test subjects showed no changes what-so-ever in either social or criminal behavior – as a result they were also not considered in the final conclusions. A very small group, approximately 35, developed an obsession with stealing everyday objects – a condition known as kleptomania. While this may seem trivial, a subset of this group also developed an urge to create giant balls out of the stolen objects and roll them through town, running over pedestrians and crushing cars.

Gaming Group 2 – 500 participants were provided with a gaming system as well as a game in the Grand Theft Auto series. Participants were monitored over the following two years for changes in behavior. Unfortunately 450 participants stopped playing the game after finishing and moved on to other games or stopped playing after losing interest. As they did not provide valid proof to back up our conclusions these participants were disqualified. Of the remaining 50 participants all showed signs of aggression and criminal activity. Upon further research all 50 participants turned out to have criminal records for violent crimes – but that is the result of having to use jail occupants after the human rights board denies permission for your study – so the results still stand.

Gaming Group 3 – The final 500 participants were locked in a single room with a single television and copy of a Call of Duty game for each participant. This group was created to address the issues from Group 2, namely the tendency of people to get bored and stop playing a game after a period of time. To encourage participants to continue playing the game each person was given an electric shock of intensity proportional to the amount of time between button pressing on the controller.

The study ended early after the participants started a rebellion after not being fed for several days. While the premature ending of the study was unfortunate it did prove on thing without a doubt, longer exposure to a violent video game does in fact increase aggression and violence in civilians.

Conclusions

When all of this evidence is viewed together an obvious result is shown, video games cause violence. All of the violent participants remained violent, and all of the participants who were subjected to horrible living conditions became violent as well. These results speak for themselves, which is good because the practitioners of the study were arrested under charges of stalking, breaking and entering, reckless endangerment, and cruelty towards humanity – but they got the result they wanted, so society benefits in the end. Now when a horrible crime is committed and a video game is found at the suspect's house we can end the investigation right there. No reason to spend taxpayers money on wasteful things like evidence and proof, it is obviously the result of playing violent video games.

The Ambiguously Inebriated Duo

Drinks for F**ked Up Occasions

ACE
&
GARY
PROGRAM UNKNOWN

You know what time it is; it's yours truly bringing back another issue of The Ambiguously Inebriated Duo (AID) just in time for finals. As always, we (Ace and Gary) save our most insightful and inspiring material for the end of each term. You know, the revolutionary shit, unheard of since the days of Gandhi, Nelson Mandela, or... uh... Karl Marx? Right... Well explaining the rationale for that last sentence might be difficult, perhaps it might even lead to a reprimand from EngSoc. But that's what AID's all about; defying the common trend and speaking about the what (drinks) we like, even if that leads to an awkward situation. On that subject, have you ever been met with a absolutely f**ked up situation, one that can only be consoled by a timely lobotomy, or perhaps more reasonably, an extremely stiff drink? No worries, we've all been there. If you chose the latter option (for the record, Ace evidently chose the former), we've got a few suggestions derived from meticulous research and exceptional experience. Therefore, this issue is henceforth dubbed as "Drinks for F**ked Up Occasions". Best appreciate the wisdom, sucka!

Stuck with an Ex as your roommate

Damn, this is one terrible time. But a contract is binding, and your poor student asses can't afford to pay two rooms worth of rent. So what to do when every interaction is like nails on a chalkboard? Whip up a few Alabama Slam'hers! The mutual euphoria from sipping on these zingers is sure to allow smooth sailing for at least a few hours. Who knows, if you're lucky you might even get to partake in a session of risky, albeit very satisfying, hate sex. Tread with caution however, Gary's last attempt resulted in some rather painful hate-jacking.

Ruining your Boss's Car

Whew, you've really done it now. I suppose in retrospect, tailing a minivan to watch Spongebob was a bad idea. No worries though, we have a solution. Hurry home and mix a few Irish Car Bombs, then proceed to down them ASAP. Time is of the essence (the alcohol on your breath is important). Returning to the office (by taxi), repeat this very simple phrase, "My bad, I was hammed". We can't guarantee this will save your job (it probably sucked anyway), but trust us, the broken car will be the least of your worries as you spend the next year working out the terms of your DUI charge.

Losing your virginity (mutually)

OK, unless you fooled yourself into believing those bullshit Hollywood love stories, or you managed to instate a false memory as a defensive mechanism, this was/is going to be a pretty messed up time in your life. So, what could possibly suit this situation, as you both lay mutually unsatisfied and disgusted in those sticky, no-longer-white sheets? You got it, a Bloody Mary. Not only will this one intoxicate and eventually render those memories obsolete, the look and texture of this one will immediately push your gag reflex over the limit, effectively distracting you from the situation at hand as you make sweet love with a new partner: the toilet bowl.

Engineering Society Creates VP Baby-Sitting Position

ANITCH BHOOTI
TU YAUNG

The EngSoc meeting #5 has come to a completion. Like at any meeting, each executive discussed what meetings they have been going to and what they have been accomplishing while the directors discussed new, upcoming events. However among the motions to change the policy manual and constitution, a new kind of motion was presented – to create a new EngSoc executive position: Vice President of Baby-Sitting (VP-BS).

The spirit of the motion was that the current executives are working very hard with all of the cross campus organizations, trying to make the student body more knowledgeable of what EngSoc is involved with and still handling all of their homework. With the new EngSoc position, the VP-BS would help alleviate the stresses that the current executives have with their day-to-day work and help make sure that they are reaching their full potential in the work they do.

To be qualified for this position, you will need good organizational and time managements skills, as part of the job will be working with the executives to formulate a daily schedule so that they know where they need to be at any time. This will help them so that they don't arrive late for their meetings and that they have enough time to do their homework. The person who becomes VP-BS will also need a strong voice to make sure that the other executives go to bed when it is their bedtime. They will also no longer be permitted to watch vulgar cartoons such as Metalocalypse and will be encouraged to watch more family friendly television, like the Magic School Bus.

The final skill needed for those who consider running for VP-BS will be the ability to cook and feed others. The current executives are very busy people, and do not have time to make nutritional lunches and dinners for themselves, and the job of ensuring these executives do not starve will move from the individual execs to the VP-BS. Let's aim to have a scury-free exec! Depending on who is executive, the VP-BS may also be required to spoon-feed food to the other executives in order to make sure each exec eats all of their vegetables.

The second reading of this motion will occur at Meeting #6. Because three readings on both societies to change the constitution, the third reading on B-Soc will occur at the first meeting of the Winter term, assuming that it will pass on A-Soc in the Fall, and then be applied for the next set of elections later that term in March.

James Cameron Hired to Developed Wat-3D Engineering

7 YEAR PLAN
2B OR NOT 2B

The WAT PD-Engineering steering committee hit another milestone this week with the selection of a development team- and a new name. Students were elated to hear that world-renowned director, and new technology enthusiast, James Cameron's bid had unanimously been selected to develop the new course. While Cameron may be best known for directing such blockbuster hits as Avatar, Titanic, and the original Terminator trilogy, his other more practical, real-world works are often overshadowed.

Cameron's plan for the new program will include an entire revamp of how the courses work, including the assignment structure, delivery method, as well as the marking structure. Assignments will no longer be the written submissions that students are familiar with, but will instead be replaced by a series of "simulations" where students will need to respond appropriately to different situations. Based on how a student responds to these situations, a corresponding mark will be assigned. While this may seem similar to the currently PD-Eng offerings, the actual situations, marking structure and delivery are quite different.

First off, students will be fitted in a fully-body, mind altering simulation suits that will psychologically transport them into different work places each week where they will undergo the various situations. A series of "braincables" will artificially put thoughts and feelings into students' minds and make them forget their real lives. This improvement will ensure that all students are actually exposed to the same situations and are on equal footing when completing assignments- something that students have long complained about.

While some situations will parallel typical workplace situations, like gossiping about a co-worker or evaluating the creditability of various references, others will challenge students even further to be able to think on their feet and make difficult decisions. The preliminary summative situation for the new PD-15 will put students into the place of an engineering co-op student working on the Manhattan Project- the project that ultimately developed the atomic bomb that led to the death of tens of thousands of Japanese civilians. Students will be faced with the complex issue of whether to continue participating in the project or resign, which would face them a life-time of imprisonment and ridicule. This situation hopes to teach students about the need for ethics in the workplace.

Similarly, an assignment for the new 3D-45 course offering will require groups of five students to work collaboratively as a team. They will need to join forces together to develop a strategy to save their families and employers form a building with a bomb that is about to go off. The one caveat? There's only enough time to save either the employer or their family. Students will need to work together otherwise none of them will be able to survive the explosion.

While real-world issues like this may seem like a complex issue that cannot be evaluated based on a simple marking scheme, quite the opposite is actually true. As any co-op student will be able to tell you from the CECS Co-op Manual, and presentations within the classroom, the employer is always right and is your job is always your first priority.

So, when evaluating the Manhattan Project situation mentioned previously, any student who continues to work on their project without questioning its ethics will receive a "competent" rating and will have the simulation end. This is based on the CECS ideal that "you choose to apply for the job and didn't sign off so there's no way of getting out of it now sucka!" Any student who questions the ethical issues or quit their job, will be faced with a life-time of simulated imprisonment, and will have to repeat the course. Since the simulations will operate in real-time, students will be psychologically trapped inside until their real-world death from starvation. This will help ensure students fully understand the consequences of their actions. While this may seem harsh, the faculty is hoping to use it as an enrolment control method, enabling class sizes to be kept at a reasonable level.

While the first offering of the new WAT-3D courses won't be available until Winter 2011, many students are eagerly anticipating their arrival in order to help develop themselves into the sort of professional individuals that industry is expecting.

The Tin Binodoku

Its harder than you think.. not

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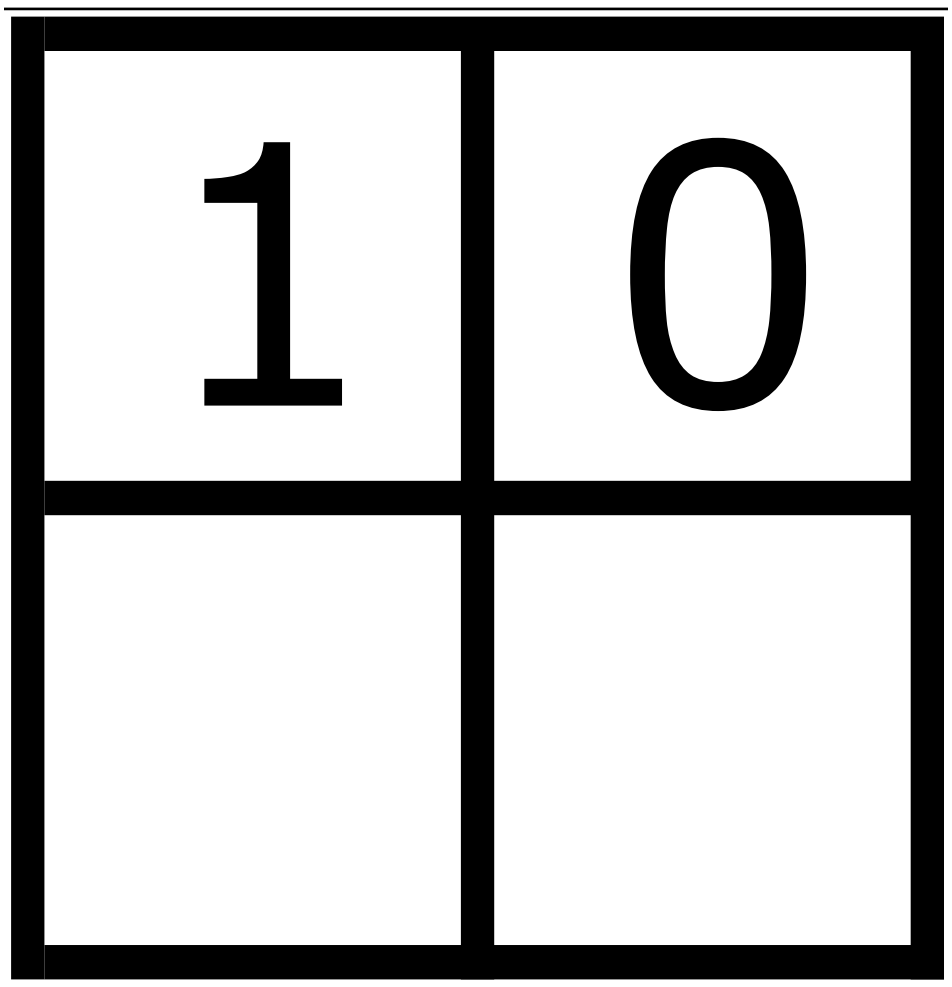


Colouring by Constants

This is really why you get your hardhat

Legend:
τ - Grey
λ - Pale Green
π - Yellow
θ - Dark Blue
ω - Brown
Ω - Pale Blue

Alternative Legend:
τ - A mute sort of off-white
λ - The colour of caked dust
π - A cruel, garish yellow
θ - Dark as the blackest night
ω - The colour of previously dry bark, darkened by tears
Ω -mint sorbet

Thumbs Up/Thumbs Down - Arts Student Edition

Thumbs up for only 6 hours of class every month!

Thumbs up for being able to tan this summer

Thumbs down for all our tuition going to fund Engineering

Thumbs up for all the construction to paint and draw pictures of

Thumbs down for doing another school term after graduation because no one will hire us :(

Thumbs up for being done exams a week earlier than everyone.

Thumbs down for having to finish a 2 page "Work Term Report" before classes begin

Thumbs up to drugs! What else would I do with my time?

Thumbs down for all the bars being empty in the summer. Who will hit on me now?

Thumbs up for the campus being filled with Engineering Guys

Thumbs Up for Frosh Week in just over a month – another excuse to party!

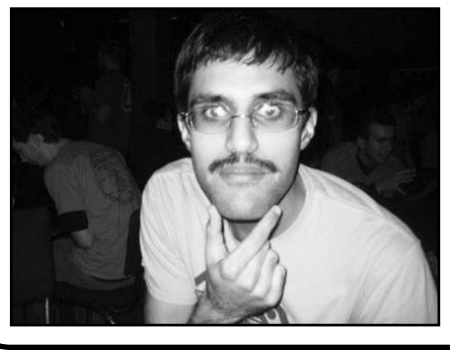
Thumbs down to humidity for messing up my hair and streaking my makeup.

THE TIN TRIBUNAL

MHECB-997 Parallel Universe FOC

"Give me a new idea for a frosh week theme."

Caffeine Princess
3A Hyperlogical
"Kama Sutra"



Creepy Camera Guy
3N Drug Mule
"Disney Princesses!"

Angero Araimo & Write O'holic
3A Erectrical & 2B Fermentation
"STDs: Gotta Catch 'Em All!"
"Hookers and Blow"

The kid that just won't leave
8J Creep-ology
"Colours of the rainbow"

7 Year Plan
2B or not 2B
"UW Controversies: Steroids, pew pew, killing beavers, PDEng... there are just so many!"

Mixing Things Up

KIRSTEN HOEDLMOSER
4A CHEMICAL

So you've started to make some healthy lifestyle changes and have begun to build a routine to fit your new habits into. You're exercising a few times a week, you're eating healthy food that allows you to exercise and pursue the activities you enjoy, and maybe you've even set some goals for yourself like a race. Congratulations! Keep it up!

Sometimes, a little variety in your routine is necessary, no matter how much you enjoy your new pursuits. Maybe you're getting a little bored of the same old running routes, maybe you've stopped seeing improvements and have plateaud a little, or maybe you're just really sore and need to work some new muscles. Maybe... it's time for some cross training.

Cross training is, essentially, an activity that complements your exercise of choice. It might complement your cardio, your leg strength, upper body strength, or flexibility. For runners, great options for cross training include swimming, cycling, weight training, and yoga.

Swimming is the ultimate low-impact activity. When your joints are sore and your feet are tired, consider hitting the pool for some quality cardio. Regardless of whether you swim like a fish or a squirrel, there are great options to be found in the pool. If you're comfortable doing lengths, consider asking a friend who is a good swimmer to critique your strokes and improve your form. If you want to work on your leg strength or aren't a fan of doing a full stroke, grab a kickboard and do a few lengths of kicking. If neither of those ideas are your bag and you'd really rather run, do some aqua jogging. The PAC pool is the perfect depth for doing this: hop into the "slow" lane, and run up and down the lanes as you would on a road or trail. This works your running muscles, but takes a considerable amount of stress off your joints. It's great for keeping up with your running when you have an injury. If you want to give swimming a try, the PAC has many open swims available every day (even some women-only swims).

Cycling is also a great low-impact activity that works your running muscles and improves your cardio. It's a slightly more equipment-based sport than running and swimming, since you need a bike, shoes, and helmet as opposed to just shoes or just a bathing suit. Any kind of bike is good – mountain, hybrid, or road are all great choices. If you have a road bike, try cycling north of Waterloo for some great hills. There are also tons of mountain bike trails west of Waterloo. Hybrids are great for most road or trail cycling, and are also ideal for using on your daily errands so that you can fit your cross training into your regular day. Make sure you wear your helmet. Your skull is only about 6.7 – 7.1 mm thick, and that's about the thickness of 4 pennies. It's not difficult to get a concussion – or worse – after taking a spill on a bike.

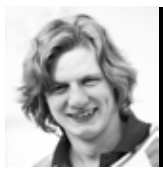
Weight lifting and weight training are excellent ways to increase your strength while keeping your heart rate fairly low. Any type of weight training is great and will improve your running, but core training is especially useful. Your core muscles are those that make up your stomach, back, and sides. Some include the glutes and hip flexors as part of your core. These muscles affect your balance, your posture, and running endurance. Try doing some planks, pushups, crunches, and double-leg lifts on your back. P90-X also offers a great core workout – but be prepared to feel the pain once you're done!

Finally, yoga is a fantastic activity that can relax you, improve your flexibility, and gently strengthen your muscles. There are simple routines you can do on your own at home, or you can join a yoga club or studio. The Waterloo Yoga Club (http://waterlooyogaclub.ca/) is a low-cost, friendly, and open option for students on campus. There are also some fantastic studios in Uptown Waterloo that are close to campus and very affordable.

That pretty much sums up cross training! It's an excellent way to stay fit and excited about your exercise regime, and a great way to prevent injury by working different muscles and giving your joints a break. If you have any questions, feel free to email the engineering running club at accelerated.masses@gmail.com. As always, all are welcome at the running club meetings. We now meet on Mondays at 9:30 pm and Thursdays at 8:00 am to beat the heat, and will be continuing our runs up until the end of classes. Watch the EngSoc mailing list for details on meetings continuing through exams.

Run happy!

Sexism in Engineering



ALEX HOGEVEEN RUTTER
3A ELECTRICAL

I am not an expert on gender studies or on women. However, I have made some observations about men in engineering (including myself) who have done things that are clearly unacceptable. I would like to start a dialogue about what is and is not acceptable, and how we should go about discerning the two.

First, let me state that not being a jerk can sometimes be very hard. Fortunately, many of the women I've encountered are very forgiving, probably far more forgiving than I deserve. The key is not necessarily to be perfect, but make sure we do our best to rectify our mistakes and to learn from them. The essence to learning is not making mistakes per se, but reflecting and making a genuine commitment to improve upon those mistakes.

The most important measure we can take is to create an environment where it is ok to speak up. For example, it is bad if flirting crosses the line to sexual harassment, but it is even worse if women are in a position where they feel they will be perceived as a 'stuck-up bitch' if they speak out.

The easier it is for women to be able to speak up and say 'this has gone too far' without being stigmatized, the better our flirting will be (and ultimately, the better luck we will have with the ladies-and that's what we want, right?).

I'm now going to discuss some specific actions we can eliminate to make engineering (and the world) a better place, but the underlying theme is to ensure we have an environment where women are not afraid to tell us where the boundaries are, when we have crossed them, and how to keep ourselves out of trouble.

Sexual Harassment: As far as I can tell, there are two main types of harassment, physical and verbal.

Physical: Keep your hands to yourself. Plain and simple. If a women wants you to touch her, trust me, she will let you know.

Verbal: It can sometimes be difficult to tell where to draw the line between flirting and sexual harassment, which is why it's so important for woman to feel comfortable to tell you to stop.

1) If she tells you to stop, stop. Apologize, learn from your mistake, and make it clear it is your fault, and not hers for 'leading you on'

2) If you think you've gone too far, you probably have

3) If your father told you these were the lines he used to pick up your mother, would you be proud?

Rape jokes: Rape is not, and never will be acceptable. Ever. Rape happens here on campus, and the prospect is damn frightening. Over 1/5th of women have been raped, and 91% of rape goes unreported (StatsCan), largely due to lingering negative consequences and stigmatization of reporting such incidents. Anything that normalizes rape, or even vaguely insinuates that it is anywhere near approaching acceptable or even funny needs to be crushed before it starts. Reporting and speaking out against rape needs to be normalized: joking about it must not. Think if your parents had died in a car accident, or if you had been assaulted and people started making jokes about that. Except worse. Much worse.

Jokes about hookers, dumb blondes, stereotypes (eg. driving), "that's what she said" and the like: I'm not going to be the kill-joy who says these jokes are never acceptable. The above section on rape is one of the few areas I will let myself use an absolute like never. That said, be very, very careful before making jokes that create a distinction between the sexes. They need to be incredibly funny, appropriate, and as inoffensive as possible. Frankly, such jokes are usually not very funny if used more than sparingly.

Phrases like 'You're so special to be in engineering (or math, or gaming, or whatever)': This can be a trap. It may seem sympathetic, or even a compliment to demonstrate awareness of a disadvantage, but remember: the reason women are disadvantaged in engineering is not because of content or capability, but because of a hostile environment. So don't 'help' a woman in engineering by compensating for imagined defects, but by treating her with respect and basing your actions objectively upon her individual strengths and weaknesses.

Discrimination, or the implication that a job is better suited for a man: There is a very, very short list of occupations and activities for which males are better suited than women, starting, and almost ending, with "male model". Last time I checked, that particular occupation has very limited demand, so there should be very little cause for any insinuation or commentary about superior capabilities of men in the workforce.

Phrases like "Bitches and Hoes": The English language can be very beautiful, with descriptive words and phrases for specific nouns such as female canines and gardening implements. It might seem funny at the time, but one generally only accomplishes the goals of looking like a fool, butchering the language, and making people uncomfortable when using such expressions.

Comments on 'slutty' clothes: It's summer. It's hot. Deal with it. Some people deal with it by wearing clothes that bare a lot of skin. Men aren't judged on their sense of fashion or functionality of their attire, so why should women? The easiest principle to live by is to make no assumptions prematurely, and judge a women as the facts come in, which is really how engineers should be approaching any issue.

To sum up, a few simple principles can keep us out of a lot of trouble:

1) Don't make assumptions

2) If it seems inappropriate, it probably is

3) Don't be a jerk

I'm sure there's more I've missed, so if you are a man, make sure you ask and find out. If you are a woman, don't be afraid to speak up and help us out. And remember, it's not about being politically correct or never making jokes, but thinking critically about the environment created by our words and actions.

POINT VS. COUNTERPOINT

POINT

EngSoc should reconfigure Executive responsibilities

COUNTERPOINT

***Preamble**: A "Special Committee" was recently formed in response to a motion put forth at the last EngSoc meeting on July 7th. This committee was mandated to discuss methods of redistributing certain roles and responsibilities currently listed in some EngSoc Executive portfolios. There have been two meetings of the "Special Committee" to discuss the options explained below and the committee currently plans on suggesting further investigation continue in relation to this matter.*

CAILIN HILLIER, LEAH ALLAN
3A GEOLOGICAL, 2N CHEMICAL

The "Do Something" Option presented below was proposed because it is felt by some members of the engineering society that there are things within the normal operation of the society which need to be addressed. These include improving communication, addressing concerns with the overloaded VP Internal portfolio, and advertising of events and services. Currently, the VP Internal position is seen as being a very social executive position, which it is. However, there is a completely different side of the portfolio that involves administration work. These administrative tasks involve reviewing the constitution and ensuring that minutes are distributed to society members. An idea has been presented that the management of EngSoc class representatives become a more significant role within the society, which would likely lie somewhere under the VPI. On top of this, there is also a great deal more work for all executive positions than when the society was originally created. As EngSoc has grown, the roles of the VPs and President have grown. Currently, it is very difficult for executives to take on new initiatives due to the large work load on top of the normal course load that everyone else experiences.

Three options have been presented in the category. They will be described individually, listing their advantages.

1. Creating a new executive position:

A new executive position would be created entitled something along the lines of VP Internal Communication and the current VP Internal position would be renamed to VP Student Life. The VP Internal Communication would be in charge of ensuring that all classes have equal representation at council meetings, be responsible for the council meeting minutes, make sure that class reps relay information from council meetings to their respective classes, review the constitution and policy manual, and perhaps control the webmaster and/or speaker. The VP Internal would then be in charge of overseeing events, enhancing advertising, coordinating directors for events, and taking on new society initiatives. This would obviously distribute the work load among the exec and allot time for them to take on initiatives to improve the Engineering Society.

2. Shuffling duties between executive members:

An alternative idea would be to simply reconfigure the current executive responsibilities to more evenly distribute the current work load. It is the opinion of some that the VP Finance position currently allows for more leeway than the other roles, providing more time for new initiatives in this portfolio (ie. Novelties improvements). This reconfiguring could take two forms. Either the events aspect of VPI could be moved to the VPF portfolio, or the administrative aspects (policy manual/constitution/minutes) of the VPI role could be moved to the VPF role. The benefit of moving the events side to VPF would mean that budgets and events would be under one VP position, meaning that directors would only have to go through one exec for information. Moving the administration tasks to VPF, however, might lend itself better to the character of that role. Traditionally, VPF is a more managerial position in nature. In addition to these changes, there are suggestions to transfer several duties of the President to VPs. These details have not yet been thoroughly discussed.

3. Adding a new directorship:

It was also proposed that a new directorship simply be added to take on new tasks that are deemed important. For example, a new Class Rep Directorship could be created, as well as a directorship entirely devoted to advertising. There was even an idea to tier directorships in order to ensure accountability. Similar to the directorship structure of the Queen's Engineering Society, our EngSoc directorships could be organized in such a way that certain positions hold more weight and accountability. These positions could be appointed by a committee, up for election, or be put through an interview process. This way, we can be completely sure that the people holding these senior directorship roles have the skills necessary to do their job effectively. This structure could also be applied to directorships that are already in place, such as Education Assistant, Speaker, POETS Managers, etc.

The "Do Nothing" Option is very self explanatory. Many argue that the Engineering Society is currently functioning effectively and do not wish to change that. There are several reasons why this logical. Logistically, not changing the structure of the executives is the simplest option. Office space will not need to be altered to accommodate an additional executive and another computer would not need to be acquired. This would also mean fewer constitutional changes that take an extremely long time to pass through council meetings (three readings and a vote for both A and B societies). This would translate into less work for the executive team, whereas they could get more work done in the mean time. Council meetings would also be significantly shorter.

There would also be a large amount of work required with respect to the testing and finessing of the new position, whether it is a redefined exec role, a new directorship or an entirely new exec member.

And there is already a large amount of difficulty present with getting people to run for executive positions. It seems as though more and more executive positions are acclaimed with candidates running unopposed. What could be implemented to fill an additional exec placement?

At the end of the day, people are basically being bombarded with information. Is more information about exec positions necessary? This falls back to the stigma associated with mailing lists. There is just too much going on, so why make things more difficult? And to what end is all of this change? When do we stop adding executives to lighten the work load? When is satisfaction with the society ever achieved? Can't we just follow tradition?

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.

What is EngSoc?

Preamble: This term has been full of lengthy discussion regarding EngSoc and ways in which EngSoc could go about improving outreach and services. The following six articles were written after one such a discussion that took place at the end of an Iron Warrior meeting several weeks ago. Six of our Iron Warrior writers have different levels of involvement within the society and bring varied opinions to light.

CAILIN HILLIER
3A GEOLOGICAL

I am involved in EngSoc, know the exec, what they do and have held directorships.

At first, EngSoc was intimidating to me. Then I started attending events and made new friends. Over time, I started to contribute to EngSoc, finding it very rewarding, a great deal of fun and a home away from home.

EngSoc is open minded. Personally, I know that active EngSoc members and the exec are forever looking for ways to improve the services EngSoc offers and try to get more people involved in order to cater to the larger student population. The people involved in EngSoc work very hard and, with time, are very welcoming. The active society members aren't mean snobs. They love meeting new people, answering questions, and giving back.

I have heard many times that EngSoc appears to be a giant clique; however it is so much more than that. EngSoc brings everyone the exam bank, POETS, course critiques and more.

Many people complain about not knowing what EngSoc does or pass judgment upon those people who are involved, lumping them into one generic group. It is lazy to complain but a completely different thing to take action and share ideas.

Any person can take initiative to become informed; that's the entire premise of civic duty. The EngSoc website and reading the Iron Warrior are great places to start. Do you know the difference between EngSoc and GradComm? You should.

The EngSoc exec work very hard and want to hear your ideas. Try emailing them; you will see this is true. Each person has the capacity to utilize EngSoc resources to create an event that interests you. Just ask someone.

In any group of people, inside jokes and strong friendships form. It is hard coming into an environment that is already established like that. But people there want you to enjoy the EngSoc events they are hosting and use the EngSoc services that are at your disposal. And feel welcomed. That's what it is all about.

LISA LIU
3A ENVIRONMENTAL

I am the one who lacks school spirit and can't be bothered to get involved ever.

We are told from day 1 of frosh week that EngSoc is here for the student body, and that they will have meetings and plan events to provide a better experience for all engineering students. However, that naivety of what we are taught soon disappeared as I learned more and more of what EngSoc is. Maybe it's the truth, or maybe it's perception, but to me EngSoc is a clique. It is a group of a specific type of students in engineering who get along with each other and hang out together, except under the impression of the betterment of the whole engineering student body.

But really, what exactly does EngSoc do? Maybe I should go seeking the answer to that question, but really, I just can't be bothered because I've never seen anything important they've done. That means what they do must not be important enough for me to go out of my way to look for it. The only thing I've ever heard of EngSoc doing is planning trips. Of course, we get the mass Facebook invites, where all those marking attending are, you guessed it, EngSoc insiders. It seems almost like these events are planned as an excuse for EngSoc people to get together and take a trip as friends somewhere.

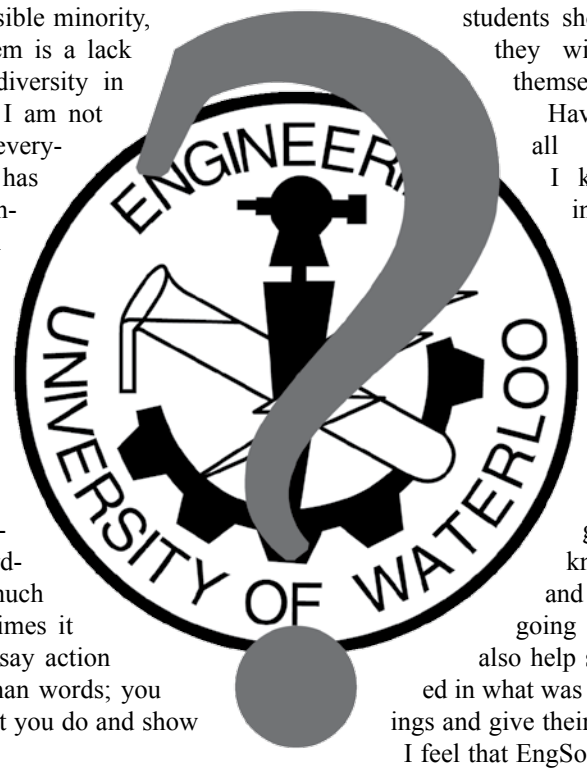
Not only is it a clique, but it's a non-inclusive clique as well. Especially as an upper year, to want to get involved in a late stage means having to penetrate a barricade put up by folks who have known each other well for a long time. Then again, maybe this is all completely false. The bottom line is that the above is the image that EngSoc has presented to the general student body. As a student society, this kind of excluding elitist image should not be acceptable.

BHAVYA KASHYAP
STAFF WRITER

I have gone to the occasional EngSoc meeting, but I am not deeply involved with the society.

EngSoc seems very inward facing, like a club rather than a student society. It doesn't deter me from attending the meetings, but there is no draw to go. The knowledge of how EngSoc operates seems very esoteric.

While I am not necessarily represented as a visible minority, the main problem is a lack of personality diversity in EngSoc. While I am not implying that everyone in EngSoc has the same personality, a certain personality type is prevalent.



The exec should be more visible. Most people are unaware of who the president is, regardless of how much he does. Sometimes it isn't enough to say action speaks louder than words; you need to say what you do and show that you care.

I'm aware of things EngSoc does for the faculty. However, I only know via word of mouth. Meeting minutes are available and this should be better advertised. EngSoc and academic reps should coordinate to bring EngSoc activities to the attention of their classes. My favourite EngSoc events are trips or Semi Formals where everyone is welcomed, even those who don't drink. These events speak to most cultural and sub-cultural demographics within engineering.

Events should be created for the larger ethnic groups in engineering, as EngSoc tends to be a bit monochromatic and the events reflect this. Changing this will be hard, but finding what the student population wants would be a start.

I do not feel represented by EngSoc; the diversity statistics of EngSoc are off. While it could be said that the problem is with me and that the only way to fix this would be to join, EngSoc should operate like a corporation: the problem can be with the client, but if the corporation doesn't change to accommodate the client, the corporation will stagnate. In this case, there is a problem on both sides, but it is EngSoc's job to reignite pride in all students. Once EngSoc can change its reputation from being an exclusive club, it will begin to attract some new blood.

ANISH BHUTANI
3N CHEMICAL

I have been going to EngSoc meetings since 1A and have held a few directorships. I got involved because I knew no one when I came to Waterloo and thought it would be a good way of meeting people with similar interests.

I think people who are involved with EngSoc are the types of people who want to go out and meet people. Through my own experience, I have found that if you are willing to go to a group of people at an event, they will be willing to meet you.

Most people don't know what EngSoc does and they fill in the gaps on their own ideas. I have gotten to know a few EngSoc execs and feel that they do a lot of work for very little appreciation.

Smaller EngSoc events that you can attend for a short while and leave should be more frequent, as opposed to events like Semi Formal. Those large events take more time and you can't hang out with just your friends. Coffee House events are great; you can attend it for a short while, see your friends play and leave. I think most events simply lack advertising and the average group of engineering students should go because they will likely enjoy themselves.

Having at least met all exec members, I know the meetings they attend and have been to the orifice a number of times, so I know what services are offered.

Blog updates would help get everyone to know what events and meetings are going on. Blogs could also help students interested in what was covered in meetings and give their own opinions.

I feel that EngSoc can be very intimidating for those who do not know anyone involved, but I think that any student who tries to meet people at EngSoc events will succeed.

HOBYUNG LEE
2B MANAGMENT

I am involved with the Iron Warrior but not much with EngSoc.

To me, EngSoc comes off as cliquey. There is nothing wrong with that, but when representing students, having an atmosphere that doesn't repel or really attract people comes off negatively.

The concern I have with EngSoc is that those involved with senior positions only seem to go out of their way to talk to classes when there is an election. This isn't a stab at the current EngSoc executives. Since my first year, all I have ever seen of execs are when they come into class and ask for votes.

This lack of face-time is the reason I do not feel represented by the society. You don't have to talk to everybody, but would it hurt to at least try and talk to some of us?

There's a variety of people from all different background that make up the student body. If EngSoc is to represent this group, shouldn't there be more events to better appeal to them?

Lack of communication could be resolved with the opportunity to give feedback. There's an online forum, but something more tangible would be nice. This would help lessen the student-EngSoc distance.

Diversification of EngSoc events would bring new people out. I've been to some events and they've been great. But it's always the same people that go. Apart from first year students, there are rarely new people attending EngSoc events.

The majority of the student body just doesn't know about EngSoc. If more emphasis was put on advertising EngSoc activities, the overall view of the Society would improve.

A more visible location for a calendar with upcoming events could help. The EngSoc Google Group is also a great way to spread the word. Let people know about it and where they can sign up.

I think EngSoc has come off as more exclusive than they would like. The execs try to help things run smoothly for the student population. However, the perception of EngSoc as a whole has come off as an exclusive clique that doesn't do anybody any good.

JON MARTIN
2B CIVIL

I have written articles for the Iron Warrior since my 1A term, as well as volunteering for Student Life 101 and Orientation Week.

I find that EngSoc has an air of privacy to it; few feel that they can join and be accepted. If you actually go out to events or talk to people on campus you find that they are actually very friendly and inclusive.

My biggest concern with EngSoc is the lack of involvement from many groups. Many people feel they are not represented by the society. Unfortunately, this feeling of exclusion prevents people from actually getting involved and making changes.

I know a few of the exec. They are all really good people who do their jobs well, balancing exec roles with regular homework we all have. They deserve more credit than they receive.

Encouraging people to come out or create an event that they want offered is the only way to change the face of EngSoc. Students have to step up and make their opinions heard instead of avoiding the issue.

I want to see more people get involved and actively change EngSoc. There are a lot of events, but opportunities to cater to a wide audience – just take initiative and make it happen.

I feel that a lot of people do not know what services are provided by EngSoc and as a result, they see the society mainly as an organizer of events, not a society representing a faculty full of students.

A system to spread information about EngSoc events and services should also take in responses and opinions of the entire engineering population. Additionally, people need to be made aware of current communication methods available.

I think a lot of people feel that EngSoc is very exclusive, which prevents them from joining and changing that image. While I personally have found the society very inclusive and welcoming, many other people don't want to take the step to actually get involved because of the perceived barriers between the society and the general engineering population.

2010: A Mars Odyssey

The Rover Team's travel to the Mars Desert Research Station for the University Rover Challenge

TOM HAYLOCK
2010 SYDE

Ever wonder what it's like on Mars? It's red, dry, dusty, desolate…and oddly enough, just like Utah. Between June 5 and 8, the Waterloo Rover Team had a chance to travel to the Mars Desert Research Station (MDRS) in southern Utah to compete at the University Rover Challenge. MDRS is a world-class Mars analogue site located outside the bustling community of Hanksville (population: 200). After travelling more than 3500km by car over the span of two and a half days, the team rolled into the Hanskville Inn for some rest.

Courtesy Tom Haylock

The Mars Desert Research Station is a research outpost near Hanksville Utah. The University Rover Challenge takes place here annually in June.

Thursday 1100 hrs – into the desert: The first day of the competition involved meeting the other teams, learning the path to MDRS, and reviewing the safety rules of the desert. Teams varied in size from 5 members to more than 20; Waterloo sent Tom Haylock (Syde), Pablo Molina (MME), Michael Leung (Syde), Mahdi Olfat (MME), and Alex Kuo (Science). Now in its 4th year, we are only the second Canadian team to enter the competition (York was the first) and the third international team. We followed the caravan of competitors down the highway and stopped at a small marker labeled "Cow Dung Road"; it was to be desert paths from here. The winding dirt path took us several kilometers from the highway into the middle of the desert. We finally arrived at MDRS, a place which can only be described as other worldly. We were treated to a tour of their facilities and then left to prepare for the competitions which would begin the next day.

Courtesy Rover Team

The UW University Rover Challenge attendees: (left to right) Alex Kuo, Mahdi Olfat, Pablo Molina, Tom Haylock, Michael Leung

Friday 500 hrs - competition day: We decided to perform a full systems test of the Rover three hours before our first event. After acquiring a communications link, our driver took the rover out. The competition is not autonomous and depends heavily on the video feeds transmitted back to the base station. Things looked good: the rover could handle well on the desert terrain, maintain a strong communications link, and was able to transmit location data. Suddenly, the Rover stopped dead and ceased to move again. A power board had failed with little time to spare before the first event. Unfortunately, the failure was difficult to diagnose and we were unable to compete in Friday's events.

Event 1: Sample Return Task. Even without a functional rover, we could still participate in this life finding mission by delivering a presentation of our life detection techniques. We discussed the indicators for cyanobacteria and the inner workings of our spectrometer in order to gain points. Cyanobacteria are a type of algae that can grow in extreme environments. If any life were to exist on Mars, it is expected to take a form similar to cyanobacteria or other desert lichens present around MDRS.

Event 2: Equipment Servicing Task. This task was wholly dependent on a moving Rover and so we needed to forfeit all points for this task. Only two events were held for each team each day. Having passed the first two, we returned to repairing the Rover.

Saturday 500 hrs – second competition day: after spending the night debugging, repairing, and testing every circuit, the team was ready once again for a moonlit drive test. This time the chassis performed well and was ready to compete!

Event 3: Emergency Navigation Task. The goal of this event was to perform a search and rescue mission to find an astronaut in distress. The last known coordinate of the astronaut was provided to our navigation expert and he identified the area we should search. An emergency delivery package was secured by Velcro to the top of the Rover as our driver began to move the Rover into the field. After five minutes of searching, the vibration and heat were strong adversaries of the Rover and we faced a motherboard error. Although we had video connectivity, we could not direct the Rover to turn. Brief maintenance was performed and a second drive was attempted. Our time soon ran out and unfortunately, we did not save the astronaut. We ended within a reasonable distance and commensurate points were awarded.

Courtesy Alex Kuo

The UW Rover traverses the Martian terrain during the final competition

Event 4: Site Survey Task. Seven flags were posted at varying heights and distances from the base station. Our goal was to perform calculations to determine the flags' GPS locations without driving to them. Several known GPS coordinates were given on a map. Our driver moved the Rover to a suitable viewing location. High resolution photographs were taken of the site layout and the approximate locations were identified on our map. Combining our range finding algorithm with the estimated points on our map, we were able to identify the flag locations and altitudes. We had great success and received a perfect score for our expertise in identification.

The awards ceremony was held later that day at the MDRS. First place, Oregan State University (USA), second place, York University (Canada), and third, Technical University of Bialystok and Nicolaus Copernicus University (Poland). The evening was capped off with a BBQ and all of the teams went to their hotels for much needed rest. There were some amazing Rover designs and the competition certainly is a testament to the Engineering ethic. There were other teams at our hotel and we saw the fervor that each team put into their device to make sure everything was completely functional. Other teams had problems too. Some teams had mechanical failures and others lost software functionality. The nature of space design is one of challenge. It is difficult to predict the environmental parameters and what your drive characteristics will be like.

The four events were a great representation of the types of tasks that will need to be considered during the design of Mars missions. Mapping the uncharted lands and searching for evidence of life will be key activities driving our exploration of the Red Planet. The MDRS site in Utah proved to be a challenging environment to work within. The rocky and dusty terrain was incredibly rugged and the high temperatures in the desert were difficult to test in advance in Waterloo. As we bounced around over the desert hills, bolts would slowly loosen (even with loctite) and we were lucky that nothing fell off the chassis.

As a first entry to the competition, we call this trip a success! Despite some intermittent behaviours, we were able to always keep our communications and video links open, as well as receive other sensor data like the cardinal directions and GPS coordinates. Getting the chassis to a point where it was able to be driven from a distance was a large milestone for us. Operating a remote vehicle at up to 1.5km away presents some very interesting technical and human factors challenges.

Just like a manned mission to the planet Mars, this trip took more than 2 years. The Rover Team was founded in 2008 as a combined effort between the Waterloo Space Society and the UW Robotics Team. The team was supported in Waterloo by many dedicated volunteers and getting to the competition would nothave been possible with their help. Now back on Earth, we have begun brainstorming our next generation Waterloo Rover. And Mars wants you. If you would like to get involved with our team, email us at waterloospacesociety@gmail.com to find out how you can help. On to Mars!

UW Alternative Fuels Team Hits the Road

MARK CREMASCO
2010 MECHANICAL

If there is one thing the University of Waterloo Alternative Fuels Team (UWAFT) is good at, it is waiting until the last minute to finish things... Oh yeah, and we build hydrogen fuel cell plug-in hybrid electric vehicles as well.

On May 16th the team packed into a couple cars and drove to the airport in Buffalo, embarking on an 11 day sleepless journey to Yuma, Arizona and San Diego, California. The first six days were spent in Yuma, followed by five in San Diego. With temperatures close to 100 degrees Farenheit (that's about 38 degrees Celcius), the team woke at 5:30 to manage a quick shower and breakfast before a 30 minute drive to GM's Desert Proving Grounds for 7:00am. Once at the garage, UWAFT and the 15 other teams in the EcoCAR Challenge worked in overdrive for 13-15 hours each day, taking only short breaks for a drink or a quick lunch. Assisted by the proving grounds technicians (TERRRRYYYYYYYY!), GM mentors, safety and technical staff from Argonne National Laboratories and the US Department of Energy, and a host of guest judges from major automotive companies, the teams all rushed to get their vehicles safety-approved to run dynamic events.

Before the competition officially began, the teams all got together for some opening ceremonies, words of guidance, and skits. Some teams wrote songs, others prepared airbands, others little skits. UWAFT? We went out and got cardboard an hour before and wrote the names of various components from the stock version and current version of the vehicle (imagine that... last minute work). We dressed up a team member in a box resembling our car, and another in some testing hardware the team uses to develop its controls. we threw boxes around and made it into the story of how to build a hydrogen car. It was so good that the next two teams to present after us used our cardboard car to make their skits better.

Oh, yeah. We won. Apparently, we are funny. Who'da thunk it.

Of course, in classic UWAFT fashion, we thought we would wait until the last hour of the last day the the grounds to get our vehicle running (Oh look - last minute again). NOW, to the naked eye, this may seem like a bad thing, considering that 10 other teams already were running, but never fear - we have some UWAFT eye underwear to cover you. Of 16 teams in the competition, only UW and the University of Mississippi are taking on the challenge of a fuel cell architecture. Most teams are working on extended range electric vehicles (EREVs) which, though challenging, tend to have a lesser challenge with respect to implementation. This considered, UWAFT was well ahead of the pack, with a significant edge on the Mississippi team, and also achieving operation before some of the non-fuel cell teams. Needless to say, go team.

Aside from the dynamic activities, there were two presentations - Vehicle Design Review and Static Consumer Acceptability - where the teams showcased their workmanship, vehicle features, and implementation of architecture to a panel of fancy-pants judges. Preparation for the presentations made up the remainder of the hours before midnight while in Yuma as the team scrambled to get them ready. For those counting - six days, less than 30 hours of sleep. This would be a trend held close in San Diego where the teams all presented on various topics including mechanical design, electrical design, controls design, outreach progress, and a number of sponsor company award topics. For many this meant 4am bedtime and 8am wake-up calls to get to presentations on time. Each presentation was reviewed by a separate panel of judges including presidents and CEOs of numerous automotive and energy firms.

With the focus of the time in San Diego on presentations, the completion of the presentations allowed team members to finally relax and enjoy their time. Spare time included trips to the hotel gym, swimming, enjoying some sun, mexican food, the zoo, walking around San Diego, a boat cruise of the harbour, and the occasional brew with other team members, other teams, and even some organizers. It was these times that allowed the teams to truly enjoy the warm weather as well as meet other teams and make contacts with the many companies and organizations represented.

At the end of the week awards were given out for many of the categories as well as some special awards for various achievements. UWAFT managed to take home the honours for best engineering and workmanship highlighting the tetris-like integration process the team went through to fit its powertrain into the small vehicle. The team also stood to cheer as Dr. Roydon Fraser, one of the team's faculty advisers, was awarded the long-term faculty award for his contributions to the team and the competitions - a well-deserved award considering the time and energy Dr. Fraser has put into the team over the years. As for results, the team finished 8th out of 16. Not bad, could be better, but it is a great place to work from going into the final year of the competition... Even better if you recall that 10 teams were able to drive and participate in dynamic events, while we only made our wheels spin on a hoist. Congrats go out to the two other Canadian teams in the competition, UOIT who placed 6th overall with their all-electric vehicle and UVic who placed 4th with their bio diesel EREV.

All-in-all it was a pretty awesome trip. The car is back home now, as is the team, and its time to move on to bigger, better, and badder things. If any of this sounds like something you'd enjoy you should probably stop by the garage (between physics and E3) and check it out - there's always lots of things to be done and never enough people to do them.

Courtesy UWAFT

Team Photo - Left to Right: Mark Cremasco, Mike Giannikouris, Trevor Sabiston, Hung Nguyen, Dan Mepham, Dan Westerbaan, Alex Koch, Dr. Roydon Fraser, Carl Chan, Allyson Giannikouris, Chris Shum

Courtesy UWAFT

First time filling the team's vehicle with hydrogen fuel

EngPlay - Birds, Gods and Snacks!

A recap of this term's EngPlay

CAILIN HILLIER
3A GEOLOGICAL

This spring term's production of EngPlay occurred last week and was absolutely phenomenal. The Birds: A Modern Adaptation by Don Zolidis was perfectly suited to the awesome hilarity that is EngPlay. This was a highly comical play that left the audience laughing endlessly. The blend of wit, pop-culture references, awesome randomness and absurdity was great. Under the direction of Matthew Kerwin and Erin Matheson, with the production assistance of Marissa Bale, each line and jesture of the characters were delivered with maximal hilarity.

Mike Seliske

SNACKS!

Laurin Benson, sporting a fancy moustache, and Ryan Mahler were a great duo, playing off each other excellently. You guys memorized oodles of lines and were flawless! I particularly enjoyed the hurried antics of the Hummingbird character, acted by Kate Brockman, and the emo goddess Iris, acted by Kiara Bruggeman.

The cast's costumes were colourful and fun, truly exhibiting the birdlike qualities of the characters. The bird beaks were extremely creative, utilizing visors and construction paper for added effects. And those were some wicked fast costume changes. Good hustle!

Mike Seliske

The chorus of birds swarm the two main characters, Eulpides and Pithetaerus

And whoever is responsible for the programs, bravo! I loved descriptions of different birds on the back of each one. You never know when you will need to accurately identify a group of crows as a murderer.

For those of you who were lucky enough to see the play, wasn't it great? And if you missed it, I highly encourage you to approach one of the enthusiastic cast members and ask them to recite a few of their favourite lines for you some time. You will be left in stitches for sure. And like the emperor bird Epops always says, "when life hands you lemons, poop on people from above."

Now for a shameless EngPlay plug! EngPlay happens every term, so if you are on co-op in Waterloo or in school next term, look for audition information at the start of next term. It is an excellent way to meet new people, boost public speaking skills, and no experience is required. Oh, and mega great fun!

Spain Lifts FIFA World Cup 2010

LOHIT SARMA
4A COMPUTER

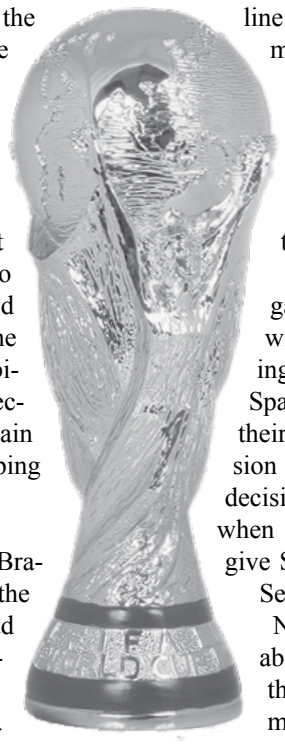
The first round of soccer matches ended with two giants packing their bags for the return journey. The disturbances in the French camp and hollow performances by the Italians made the world realize South American football is here to stay with 5 teams from South America making it to the round of 16.

Uruguay opened their round against South Korea with an early Suarez goal. South Koreans came back into the game with a Lee Chung-Yong equalizer and were in the driving seat in the second half, until Suarez curled the ball beautifully into the top corner to end the South Korean dream. Ghana, the sole African representative, started brightly in their game against USA and took an early lead due to a defensive lapse. In the second half, the much required midfield substitutions triggered a USA comeback. A defensive lapse in extra time broke the American dream as Gyan's goal took Ghana to quarterfinals (to meet Uruguay).

Netherlands did not hit their top gear but still managed a 2-1 win over Slovakia, thanks to their goalkeeper- Stekelenburg. Brazil cruised against Chile with Juan, Fabiano and Robihno getting onto the goal sheet. The catalyst to their win was a sturdy defensive midfield, providing them an astounding 60% ball possession.

Argentina had been convincing throughout their group stage and now faced Mexico in the round of sixteen. They were helped by poor refereeing as Tevez headed in the ball from a clear offside position. The subsequent replays in the stadium did not help FIFA (who still refuse to incorporate television replays in the game) and the referees as the Mexicans swarmed the referee with justified anger. Argentina wrapped up the game with a defensive lapse and a stunner from Tevez (3-0). The much awaited game, Germany vs England, had a similar flavor of defensive lapse and poor referring. While England were outplayed by Germans 4-1, the highlight of the game was Lampard's disallowed goal, which should have stood as the ball had clearly passed the line .

Paraguay and Japan gave it their all and the game had a few clear cut chances but neither team could find the net resulting in a 0-0 score line after extra time. Japanese hearts were broken as Paraguay won the match on penalties (5-3). The Battle of Iberia, Spain vs. Portugal, was a tight game in the first half with Torres still trying to make an impact on the World Cup. Portuguese were undone by a Iniesta-Xavi-Villa combination halfway through the second half and after scoring Spain did what they do best- keeping the ball (Spain 1 Portugal 0).



Quarter Finals:

Netherlands Vs Germany: Brazil controlled the game in the early stages and took the lead through Robinho. Stekelenburg kept the Dutch in the game with a fantastic save. Felipe Melo was the villain as he first blocked his onrushing goalkeeper to score a own goal with and then, was sent off for kicking Robben. The Brazilians lost their confidence and were deflated and this paved the path for a Dutch comeback, with Sneijder's goal taking them into the semi-finals.

Ghana Vs Uruguay: Muntari's cluttered shot ignited the African hopes as they took the lead but Forlan's got Uruguay back into the game with a viciously swerving free kick. In extra time, the stage looked set for a Ghana win when Suarez was rightly sent off for a handball. Gyan's kick hit the crossbar and the drama continued into the penalty shoot out with Ghana missing 2 penalties sending Uruguay through to the semifinals.

Argentina Vs Germany: Maradona's men were up against their first tough test and they failed miserably which was quite evident from the 4-0 score line. It was a German show for majority of the game and their counter-attacking style proved to be too much for the South Americans. Messi's spark was not enough and the German youngsters looked ready to win it all.

Paraguay Vs Spain: This game too had its controversies with offsides and penalty's being handed to both sides. The Spanish looked in control with their usual overwhelming possession share but could not get that decisive goal until the 82nd minute when Villa slotted it past Villar to give Spain the victory.

Semi-Finals:

Netherlands Vs Uruguay: On an absorbing night in Cape Town, the Dutch showed us something more, and as a result, the Dutch were back in the World Cup final, 32 years since their latest appearance beating Uruguay 3-2. The win over Uruguay was a triumph of mental strength and a measured approach, areas in which this team has typically come up short. As a cluster of orange jerseys bounced up and down in celebration before fans who have suffered more disappointment than most in this tournament, it was as if a great sigh of relief was being sent into the night sky above Green Point Stadium.

Germany Vs Spain:

Carles Puyol soared high to head in the goal that sent Spain into the World Cup final for the first time with a 1-0 win over Germany in the second semifinal.

In a rematch of the 2008 European Championship final that Spain won by the same score, Puyol leaped in the centre of the area in the 73rd minute to score from Xavi Hernandez's corner kick, finally giving Spain the lead after having dominated from the opening whistle.

Spain's best previous World Cup finish was fourth in 1950, when the final round consisted of a four-team group.

Final:

Netherlands Vs Spain:

The most anticipated game on the planet was played at Soccer City, Johannesburg. Spaniards started with a dangerous Xavi free kick and quickly settled into their passing mode, but not for long. The Dutch midfield made the game physical with some strong and often dirty tackles. Both teams failed to find any rhythm and Howard Webb, the referee, gave out 11 yellow cards- setting a new record for a World Cup Final. Arjen Robben missed a golden one-on-one chance in the second half and the game ended 0-0 in regular time. In extra time, Spain started to press more with the substitutions providing the much needed spark. The Dutch were a man short as Heitinga was sent off for bringing down Iniesta. It was Iniesta who won the match in the 116thminute for Spain. Spain wrote their name in the history books with their first World Cup Victory. The golden era of Spain football started with them lifting the Euro Cup in 2008 and continuing with them winning it all in South Africa. The FIFA World Cup 2010 in South Africa showed us how much the African people love the game and also gave us a glimpse of their warm hospitality. As for me, I learnt to put my money, where Paul's mouth is.

The Brew Man Group: Beau's Lug-Tread

DAN ARMSTRONG
3T MECHANICAL
NEIL PARTRIDGE
3T CHEMICAL

This is a very rare occurrence ladies and gentlemen. For only the second time in the last year, Dan and Neil are writing about beer from the same country. We've each spent months overseas sampling the foreign brews, but now we're both home in Canada. No more 'Neil's in Japan with yellow fever', no more 'Dan's in Amsterdam with...green fever'. It's time to bring back the Canadian content of this column so that we may once again commend (or condemn, slander, insult, etc.) the beers of our people. Today we'll be discussing a brew from the outskirts of Ottawa that, thanks to some more economical packaging, recently became much more affordable at the LCBO. Despite a brief mention in Dan's Ottawa edition from the Fall 2009 term, Beau's Brewery and its flagship beer Lug-Tread now get a full analysis and critique from your favourite pretentious a**holes. Plus we get to talk about one of the few styles not yet included in our 1.3 year history, the Kölsch.

Dan Armstrong

Neil: An enigma not seen often in North America, the history of Kölsch is not well documented. The first mention in brewing literature is in the Obergarige Biere undihre Herstellung, 1938. This text makes mention of a certain Obergarige Lagerbier, translating directly to top-fermented lager beer. These undergo a primary fermentation with a top-fermenting ale yeast, and then are crashed to low temperatures for a period of aging, or in other words, lagered. The resulting brews may have some of the lighter notes (esters/phenols) of an ale, with the crisp clean finish of a lager. In my mind, this could pretty much be the perfect style of beer for Beirut or flip cup.

The first brewing was probably around 1900 in the city of Cologne (Köln) Germany. However, it's interesting to note that most German beers at the time were in fact, lagers. So why did they switch it up? Looking further back in history, the people of Cologne had a strong resistance to change. During the 14th century, hops were essentially the dominant bittering agent in beer. But, the brewers in Cologne continued using gruit (mixture of spices and herbs) for a significant period. A little later, lagers were eventually introduced in the underground beer scene, and subsequently resisted throughout the 1600's by beer purists. Eventually lagers won the people over, but upon comparison with other regions, the people of Cologne were stubborn SOB's! These factors probably indicate why the Kölsch style emerged when and where it did, as the people clung to ale brewing despite the domination of lager beers in the market.

New! Quick brewing tips: Use mainly two-row, pilsner and wheat malts. Target a slight noble hop aroma with low overall bitterness. Pale to burnt straw in colour. Moderate alcohol level with dry finish (high attenuation; little remaining sugars).

Dan: This 5.2% Kölsch comes to us from Beau's Brewery in Vankleek Hill, a tiny town just inside Ontario, half way between Ottawa and Montreal. Since its inception on Canada Day in 2006, the family-run brewery has been committed to making high quality, unique organic beers. While the Lug Tread may not seem all that unique at first, it should be noted that the Kölsch is a fairly obscure style outside of Germany. Regardless, the brewery has won many awards, for both its beers and its business practices. While I very much enjoy each of their brews, it frustrates me that the Lug-Tread is the only beer produced year-round. Each of their seasonal offerings (an IPA, altbier, oktoberfest, and ancient herbed ale) are great and would be much appreciated in a regular line-up. One thing I held against the brewery until recently was their lack of stronger beers, but they responded with their 'Wild Oat Series', whose first two one-off brews were an 8% stout that used Belgian yeast and an 8% double IPA. Another compliment I must pay the brewery is for the haste with which they deliver their beer to the LCBO (I've seen Lug Tread in uptown Waterloo LCBO that was only four days old). The stuff's almost as fresh as Neil on his last 'solo at Caesar's' night.

Neil: First off, props to Beau's for developing a sound flagship beer. For years, Canadian beer aficionados have been split choosing between the complexities of ale versus the crisp drinkability of a lager. No more! If I were to drink any (pale) lagered beer style, Lug Tread would be one of my first choices. Pouring into my pretentious beer glass, the slight burnt straw hue indicates the use of some toasty malts A bubbly white head springs up, but doesn't hang out for too long... Oh well, no one likes it anyways (kidding)! Moving on, the nose is a little zesty, owing to either a last minute peel addition, or an effective yeast for this style (I'm banking on the latter). The first sip is strongly dominated by lager characteristics; crisp, clean, with a perfect level of carbonation. However, it doesn't take much to catch tangible hints of fruity ester remaining from the ale yeast. Overall, well-balanced and well suited to summer; I dedicate this brew for all the exam goers in the 'loo this term (even though you won't be able to drink it, sucka!). **[3.5/5]**

Dan: On my recent European voyage, I happened to be stuck in Cologne, Germany for a few hours due to a missed train connection. Normally I'd spend the time sending hate mail to Neil, but fortunately, Cologne (Köln, in German), happens to be the birthplace and current residence of the Kölsch style. So naturally I went to the first bar I could find outside the train station and started pounding back Gaffel Kölsch out of its tiny 200mL glasses. The servers keep bringing more to your table until you indicate 'no more' by placing your coaster on top of your glass. It's a fairly ingenious system. Sadly this practice is not common in North America, but I happened to receive some Kölsch glasses for Christmas last year, meaning I can enjoy my Lug Tread in its proper state. This clear, golden ale could easily be mistaken for a typical bland lager but the aroma definitely tells otherwise, showing off fresh grainy biscuit mixed with lemon zest and spice. The biscuit flavour dominates the taste at first but quickly leads into a delicious fruity apple-like sweetness with just enough herbal/spicy hops to balance things out. It isn't intensely flavourful or overly complex, but it's everything I would want from this rare style. Delicious, crisp, and refreshing; this beer pretty much demands a BBQ and pool party be started in the immediate future. **[4/5]**

Recommended for consumption if you like: Pilsner Urquell, Warsteiner, Bitburger, Grolsch

Props to hops // Dan and Neil

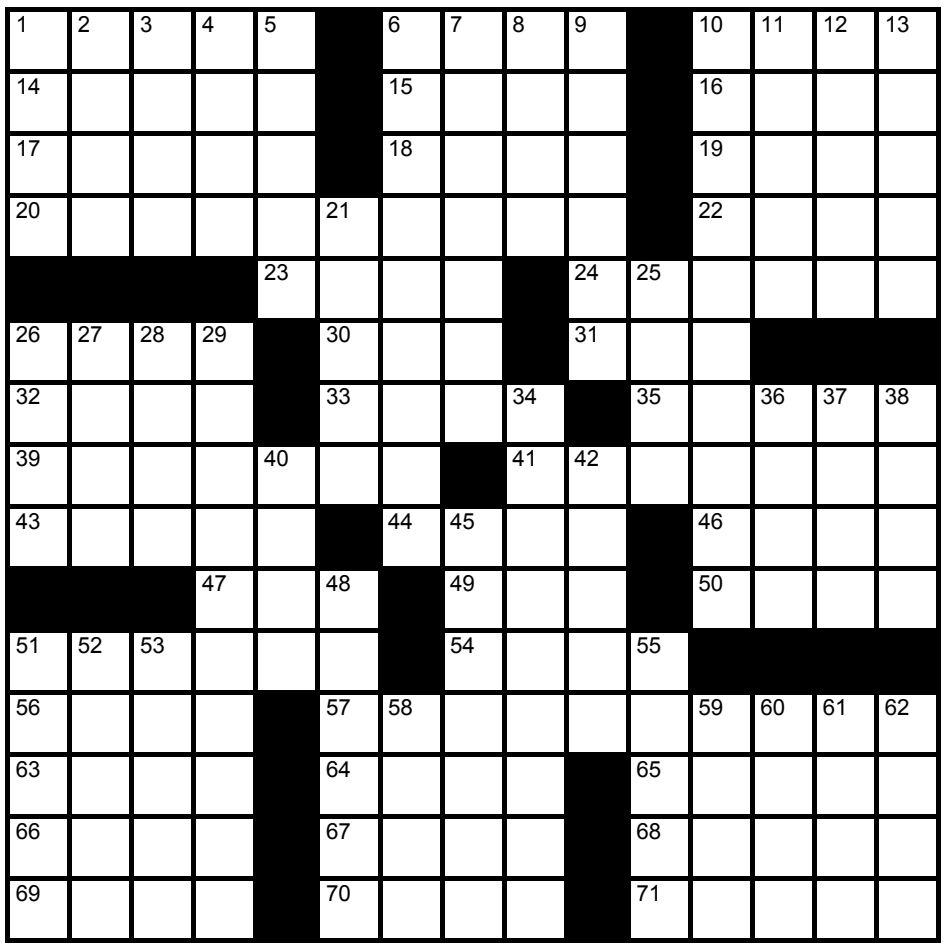
Solution To Last Issue's Puzzles

I	C	I	N	G	■	R	A	S	E	■	H	U	F	F
C	E	D	A	R	■	I	R	I	S	■	I	S	L	E
E	D	E	M	A	■	G	I	G	O	■	P	E	A	T
D	I	S	E	N	C	H	A	N	T	■	P	U	R	E
■	■	■	■	D	O	T	■	■	E	L	O	P	E	D
■	Z	I	P	P	Y	■	F	A	R	E	D	■	■	■
M	O	C	H	A	■	S	E	N	I	O	R	I	T	Y
E	N	O	L	■	A	N	T	I	C	■	O	B	O	E
T	E	N	E	B	R	O	U	S	■	O	M	E	N	S
■	■	■	B	O	M	B	S	■	P	R	E	X	Y	■
A	R	R	O	Y	O	■	■	C	A	B	■	■	■	■
F	E	E	T	■	U	N	F	A	M	I	L	I	A	R
R	E	D	O	■	R	E	I	N	■	T	O	N	G	A
O	V	U	M	■	E	R	G	O	■	A	S	T	I	R
S	E	X	Y	■	R	O	S	E	■	L	E	O	N	E

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

The Iron Crossword

LISA LIU
3A ENVIRONMENTAL



Across
1. Kitchen counter?
6. Bow
10. Commanded
14. Dig, so to speak
15. Lady Macbeth, e.g.
16. Husk
17. Chow line?
18. Mix
19. Forum wear
20. Medium soft melon
22. Bypass
23. Beethoven's birthplace
24. Victorian, in a way
26. Jamaican exports
30. A hand
31. "___ any drop to drink": Coleridge
32. Previously luminated
33. A Romanov
35. Clean, as a spill
39. Perception
41. Driving force
43. Bangladesh's capital, old-style
44. Bank
46. Functions
47. White wine and cassis apertif
49. After expenses
50. Extinct Dodo Dancing Organization
51. Yellowstone sight
54. Mouth, in slang
56. "Thanks ___!"
57. Poppable plastic wrap (2 words)
63. Aria, e.g.
64. Length x width
65. Pond buildup
66. 10 C-notes
67. ___ ground beef
68. "Superman" actor Christopher
69. "___ of Eden"
70. Dismal
71. Airspeed velocity of an un___ swallow

Down
1. After-bath powder
2. "I had no ___!"
3. "Oh, my aching head!," e.g.
4. At one time, at one time
5. Doctor's order
6. Those who started the fire
7. Capitol feature
8. Cut short
9. From ___ in (2 words)
10. Downtown Toronto fine dining establishment (2 words)
11. Scent
12. Finger or toe
13. Carry away, in a way
21. Disinclined
25. Cakewalk
26. Bust, so to speak
27. Arm bone
28. Catchall abbr.
29. Endure (3 words)
34. Erodable channel side slopes
36. Slog
37. Brought into play
38. 100 centavos
40. Bearing
42. Nickel, e.g.
45. Large anteater (2 words)
48. Like Playboy cartoons
51. Fritter away
52. Hawaiian greeting
53. Some shirts
55. Necklace item
58. $CO(NH_2)_2$
59. "Guilty," e.g.
60. Ancient
61. Bat's home
62. Astute

The Iron Sodoku

ERIN MATHESON
2B CHEMICAL

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

Congratulations to 2012 Electrical, and 2012 System Design for being the first to complete last issue's sudoku and crossword respectively!

prof *Quotes*

Send in your prof*Quotes* to:
iwarrior@engmail.uwaterloo.ca

"If you noticed in the summary before the quizzes, I tell you to bring a ruler and a rubber to the final exam." (Referring to an eraser) - S. Fischmeister the Fish Master

(Describing the smallest time constant allowed for a circuit design). "Don't go less than that. There will be dragons. It's like the place on the map you aren't supposed to go." - *David J. (DJ) Rennie, ECE 438*

"Hello my name is Reinhold Schuster and I'm a retarded professor, sorry, 'retired' professor." - *Guest Lecturer, ARCH 276*

THE IRON INQUISITION

"What are your thoughts on the new Govenor General?"

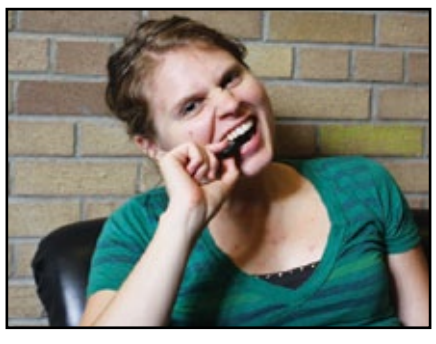
Cailin Hillier, 3A Geological

Shari King
1B Mechatronics
"Yes!"

Mitchell Jameson
1B Computer
"Maybe the government won't screw us over anymore"

Tonya Burgers
2B Earth Science
"Can I be the next president of the university then?"

Laura Sisson
4A Mechanical
"It's kinda cool that it is so close to home"



Leslie Merrithew
4A Civil
"Well he is obviously very good at making money... tuition?"