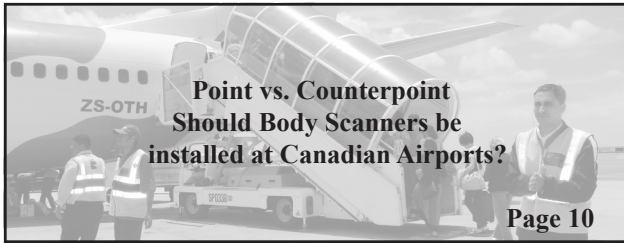


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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

VOLUME 31 ISSUE 1 | WEDNESDAY, JANUARY 20, 2010



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<http://iwarrrior.uwaterloo.ca>

McMaster Hosts CFES Congress 2010

UW CFES 2010 WATERLOO DELEGATES

We realize some of you thought that we failed when you didn't see us in class for the first week, but we're back! We were attending the Canadian Federation of Engineering Students (CFES) Annual Conference in Hamilton.

The CFES is an organization that facilitates communication, sharing of ideas, and exchange of information between member schools across Canada. The CFES provides many services to Canadian Engineering students including organizing the Canadian Engineering Competition, Complementary Education Courses, Pro-Mag (a magazine for Canadian engineering schools), Charity Cookbook (available in Novelties), other conferences and providing a liaison between Engineers Canada and engineering students.

There were presentations by motivational speakers as well as industry experts. Most of the sessions were facilitated by the CFES organizers and dealt with roundtable discussions to share knowledge between schools. One of the sessions, for example, provided information about accreditation. This presentation was put on by Engineers Canada. Some exciting changes are coming to our engineering education and by 2014, students can expect to see changes in the current system to an outcome-focused assessment which has been developed with student input.

Another session on the future of engineering looked at how engineering has remained a four/five year program while other professional careers require a much



UW delegates pose with their Kyle Ruttan Exposition of Science and Engineering award at the CFES Congress 2010

more rigorous time in school (medicine and law for example). Canadian engineering studies are focused mostly on technical components, and to succeed in the workplace most engineers require a strong ability to communicate as well. There was a detailed discussion on how engineering schools don't currently support students taking minors in other arts or business programs. Students are becoming more interested in supplementing their engineering studies with other subject areas and there is going to be a

push for schools to support this type of study path. Some schools (including Waterloo) are also working toward including a co-curricular record on official student transcript that lists extracurricular involvement and volunteer work completed during your undergraduate program.

We also had the opportunity to meet a lot of engineering students from other schools across Canada. Every night had a social event designed to help us mingle with people from across the country; "like how ice cubes mingle with straw-

berries when you're making daiquiris in a blender" - Tim Bandura. The night activities included an 80's themed party, a graffiti party (white t-shirt + permanent markers), a trip to Niagara Falls and two formal banquets. There was plenty of time to enjoy beverages and spend time in the company of others between events and sessions.

We competed in an exposition between all the schools that showcased one aspect of each school that they thought performed particularly well. We are proud to say that our presentation of *The Iron Warrior* earned our school 3rd position in the contest!

The new CFES National Executive was also elected during the week and we are very happy to announce that the following Waterloo students are representing us very well: Kevin Liu, VP

Finance and Administration; Samantha Pinto, International Relations Commissioner; Cara Kennedy, Complementary Education Commissioner; and Michael Seliske, IT Commissioner. We are all very proud of their accomplishments thus far and wish them the best of luck this year - we encourage you to pass along your congratulations to them!

Overall, the week was fast-paced, fun filled, educational, epic, enriching, team building, inspirational, social, and AWE-SOME!

Tim Bandura, Sean Walsh, Laurel Hofarth, Mike McCauley and Nadine Ferguson.

Fuelling the future: Tech Gurus and Students Unite

Technology, networking & entrepreneurship

BENJAMIN SHEPHARD 1B MECHANICAL

I've just entered a room full of tech savvy looking students, laptops everywhere tweeting, last minute presentation preparation, most people know at least one person in the room... I know no one.

Epcon is a conference for young students who have a passion for technology. It isn't necessarily a technology conference- it's more of a social atmosphere where the aim is to connect young aspiring people.

Realization of this fact occurred as soon as I sat down, when a conversation bloomed, business cards were exchanged, and I was graciously accepted at the table. The day was off to a stellar start.

As a conference for tech savvy people I wasn't sure what to expect: were we going to hear about products, innovation, opportunities? These are the ideas that came to my head, though I was pleasantly surprised.

The schedule was filled with keynotes, breakouts sessions, really good food and

a fun, surprisingly involving "e-lympics". We started out with a keynote speaker and that's when the day started flying by.

My first keynote (I showed up a day late) was by Paras Dharamshi on Myths & Realities of Entrepreneurship and I soon learned this was the major focus of this conference. Parash pulled from his experience as an entrepreneur, speaking of the pitfalls and rewards in this perilous path.

Following this keynote I attended my first breakout session. These sessions were designed to promote ideas of what the "next big thing" was. This first breakout session was presented by Peter Sweeney of Primal Fusion (primalfusion.com). I highly encourage people to visit his website to see what his company is up to.

The other breakout sessions focussed on

Nanotechnology and Technology in Developing Areas. I attended the web sessions as it is a strong interest of mine but as you can see there was a fairly broad spread of topics.

In a flash we were onto lunch. Lunch at a conference doesn't sound like it should be overly important, but my mind was soon changed.

With great food, conversations were quickly started and connections were made.

The networking done at this conference was immense. Business cards whistled past heads, names were shared and ideas multiplied.

Next we heard the story of Steven Woods who is currently employed with Google at their Waterloo site. This keynote filled with personal experiences really showed how the life of an entrepreneur was not the thing

for everyone. Stories of failure and debt were countered with his success and big payoffs.

Next event was filled with competitions involving cellphones and computers that really broke the ice and soon I was sitting at a table with a bunch of friends I hadn't known an hour before. There were texting relays, blindfolded typing contests and trivia to top it all off.

After a final breakout session, we were onto 7-ate-9. I would call this dinner-at-its-best: more connections were made, great food and to top it off an epic talk by Saul Colt the lead evangelist for Thoor (thoor.com). Saul brought humour, experience and advice to a whole new level and blew everyone away with his great talk.

I'd like to send out a big thank you to all the people who organized this event, and also anyone who reads this, sign up next year and be prepared to have an epicly awesome time!

Check out the website at epcon.epitech.org and the twitter stream @HiEPIC



Letter from the Editor

Live it up!



AMRITA YASIN
EDITOR-IN-CHIEF

Dear IW, page # 2

After realizing that floating phrases and incomplete sentences won't take me anywhere I am going to start my editorial with this very sentence that you are reading right now. I have always been bad at starting essays/reports/letters – you name it! Sometimes it's due to the lack of ideas, sometimes the right words or at times both. Ever since I started working on this editorial I have been having difficulty sorting out my train of thought. But right now, after putting the entire issue together, I owe a huge thanks to Mother Nature/God/whatever mysterious order of things exists out there for the 'awesomazing'

(awesome and amazing, get it?) team of writers and editors I am working with. THANKS to all of the writers for submitting their articles by the deadline, and for being patient with my abrupt and untimely, desperate emails asking for photos, clarification on content issues. And I apologize to those whose articles could not be included in this issue due to space constraints. I'll try my best to include them in the coming issues. Also, a huge thanks to Roy and Michelle for helping out with the layout on the weekend – this issue would not have made it without their contribution.

I have a couple of announcements that will excite you and motivate you to read the newspaper even more often. First of all, as some of you may already know The Iron Warrior started its publication in 1980 and so 2010 marks the 30th anniversary of the best newspaper on campus. As a part of paying homage to the history recorded in the IW archives, there will be a special feature in every issue where article(s) from any of the past issues will be reviewed. It's actually quite an inspiring experience to read through the old archives. It gives an opportunity to see the past through the eyes of people who lived through it. It makes me realize the importance of engineering traditions that still bind students through time. I have often stumbled upon unrecognized titles and names of buildings or clubs. Columns on world issues and opinion pieces sometimes show how much the society and mentalities have changed, while at other times gradual development of technologies talked about years ago show that we still have a long way to go. If curiosity is taking over you, don't let it pass. Later in the term, IW staff will be organizing an official 30th anniversary event whereby students will be shown some old issues - but more on that later.

Secondly, CFES (Canadian Federation of Engineering Students) Congress 2010 took place in early January in Hamilton. UW student representatives gave a presentation on The Iron Warrior as one of the elements that performed of their school very

well and won third place in the Kyle Ruttan Exposition of Science and Engineering. I encourage you all to read the front page article written by the CFES Congress participants if you haven't already done so yet.

Thirdly, IW has a brand new super-cooper amazing, fancy website, thanks to Benjamin Shepherd who volunteered to take IW forward into the 21st century and was voluntold (more on this term later) to become the IW Web Editor. Go ahead and read Ben's article on the additional features of the new website.

Hmmm...With this I was almost thinking that I have mentioned everything required for my first editorial and I just realize that I haven't introduced myself! So Hi everyone! I am Amrita Yasin and I'll be the IW

It makes me realize the importance of engineering traditions that still bind students through time

Editor-in-Chief for Winter 2010. Some of you might not recognize me as an old contributor and I am not! It seems like yesterday when I emailed my first article to my TA accidentally and the feeling of intense guilt took me to the IW office on the second publishing weekend to help out with the layout. Let's just say I got corrupted and started waiting impatiently for publication weekends where intense layout editing made me feel blind. And holding a newspaper on Wednesday afternoon seemed to be the best feeling ever.

While I am at it, let me make this fact clear: I am a very LOUD person. Even if I were to put 'loud' in 20 point font it wouldn't do justice to my vocal cords. So if you are talking to me and suddenly feel

excessive pressure on your eardrums, please don't think I am yelling at you – It just means I am overly excited to be talking to you! At the same time I can be very easily and meekly startled. For those of you who have dropped by the IW office to say a friendly 'Hello' have experienced this. A friend once diagnosed this condition and concluded it was due to an excess of sodium ions in my blood stream. I am going way off the track so let me get back!

Let me give you a heads up on what to expect in this issue and ahead in the term. Our features this term will include a review of old archives (as I have mentioned before), Brew Man Group columns, Fashion Files, movie and book reviews, a column on research at UW, gaming, much-loved-by-IW-readers Chad Sexington column and of course a PCP. In this issue, you will see the usual EngSoc stuff – Exec reports, invitations by some directorships, and articles on past events. There is a traditional 'While You Were Out' article for the first issue, some co-op articles, and you get to know the FOC for 2010! In addition there are some interesting reviews of the CFES Congress, Epcon conference, NCWIE, IIE National Student Conference, a column on the Canadian political scenario and a very non-typical column on global warming. And once again the credit for this variety in topics goes to the staff writers!

Now, after devoting more than 150 words of my editorial to a description of the content of this newspaper I shall say my favourite word: F-E-E-D-B-A-C-K!!! We put a lot of sincere efforts into this newspaper to provide you with news, entertainment, opinion pieces and whatever it is that you want to read. If you like something tell us and we'll include it, if you don't like anything come to the office and yell at me – I promise I won't talk back!

I would use the remainder to talk about something that has been nagging me for a while. "When was the last time you did something for the first time?" – I will be honest, I don't know who said it or where I read it almost 9 years ago (maybe more) but this sentence inspired me a lot. I started asking myself this question every other day. At the age of 11, it couldn't mean more than coming up with some weird game to be played with girlfriends or some insane idea to annoy my parents. Gradually the thrill that I often feel when confronted with something new died down. Last term, it came back to me hitting like an almost guilty feeling. A lot of us get so busy and used to our routine that we never think about doing a little something that will be different from the ordinary. Days are spent at school or work and evenings and weekends are spent gossiping and hanging out in bars or cafes. I am not saying there is something wrong with it but we often forget the sensation of racing heartbeat or the cold shiver that runs down the spine when we are about to attempt something for the first time. Or maybe it's the fear of failure that prevents us from getting ourselves into

A lot of us get so busy and used to our routine that we never think about doing a little something that will be different from the ordinary.

a new experience. My last co-op was in Toronto and I decided to do stuff that I hadn't done before. I went to a musical, a ballet performance and I went rock-climbing.

A year ago I wouldn't have ever thought of doing either of these. And honestly these were experiences that I don't regret at all (although I made a fool of myself rock climbing). Trying different things doesn't have to mean an endeavour requiring time and budget planning and resulting in a new album on Facebook. Sometimes stupid childish activities are good to put divert your mind off the daily worries too. Let me give you some examples: Last year I tried painting on a heap of snow with acrylic paints. Do you know if you put an empty Five-Alive juice box inverted on a flat surface and jump on it, it explodes! Trust me it's fun. Get some pieces of cardboard and try constructing a clock by sticking some elongated structure in the middle. Put it out in the sun (if it's there) and guess the time. It will keep you smiling for a couple of days.

With this I will conclude my editorial. Have fun with school/co-op and whatever you do!

Smile C:
Amrita Yasin

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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Amrita Yasin

Assistant Editor
Michelle Croal
Vacant

Layout Editors
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Yousif Al-Khder

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

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

Mail should be addressed to The Iron Warrior, Engineering Society, E2 2349A, University of Waterloo, Waterloo, Ontario, N2L 3G1. Our phone number is (519) 888-4567 x32693. Our fax number is (519) 725-4872. E-mail can be sent to iwarrior@engmail.uwaterloo.ca

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Global Warming at CIGI



ALISON LEE
1B NANOTECHNOLOGY

Lately, Waterloo has seen a huge spike in “innovation”-themed initiatives, including the launch of CIGI in 2002. CIGI, the Centre for International Governance Innovation, is an international think-tank of scholars who research ideas for global change. The CIGI building is at the intersection of Caroline and Erb St, less than a 15-minute walk from campus. It’s a hub of social, political and economic innovation, as well as an impressive work of interior architecture with a gigantic atrium showcasing sustainable urban design.

However, the environmental design was not the reason for my visit on Thursday, January 14. CIGI offers a monthly signature lecture series open to the public. The lectures are short but engaging about any topic relating to governance. This past lecture was on a familiar topic: environmental change, but it skimmed over the doomsday climate change scenarios to focus instead on the consequences that could arise in international relations - remarkable consequences that have received much less attention. The lecturer, Cleo Paskal, addressed the topics of her new book *Global Warring: How Environmental, Economic, and Political Crises Will Redraw the World Map*. The house was

packed and you didn’t have to be a hardcore environmentalist to appreciate some of her points.

Here’s a problem for the civil engineers: Most human infrastructure is grafted to the natural environment assuming that the land will not change drastically, but environmental changes like coastal erosion and glacial melting are rendering many structures obsolete. In summer 2006, France had to power down 1/3 of its nuclear stations and import energy from the UK because of the

France had to power down 1/3 of its nuclear stations and import energy from the UK because of the lack of river water to cool nuclear reactor cores.

lack of river water to cool nuclear reactor cores. Hydro dams are built based on historical weather data, which is no longer as reliable for modeling. The Thames Barrier in London is an engineering marvel, but it only protects against tidal flooding without considering there are many other types of flooding, like river swells and rising groundwater. What used to be crucial island military bases for nations around the world are disappearing underwater, leaving nations vulnerable. The list goes on, and it can seem scary.

It shouldn’t be so scary! When an engineer discovers a potential problem, the right approach is to examine it further and develop solutions. Right now, we aren’t doing enough of either. Other opinions are also essential. It’s easy to see how unexpected changes in infrastructure could trigger political fights and economic instability. Not only is our physical infrastructure not well-suited to environmental change, but

our legal infrastructure also needs some rethinking. Paskal explained how international maritime boundaries are often based on coastal geography. Retreating coastlines and disappearing islands can lose a nation its rights to oil-drilling sites or crucial fishing waters. Water, fisheries and hydro-power-sharing agreements are all at stake, unless laws are re-written to accommodate environmental change.

Some believe that we can engineer the climate to reverse the current changes, but that can be scarier than the changes themselves. We don’t have a thorough understanding of all of Earth’s systems, so purposely making large-scale changes to them could trigger countless unknown natural mechanisms. If things do go wrong, it’s also very hard to pinpoint responsibility. For example, seeding rainclouds in one region can cause drought in another, but who is to say whether the cloud-seeders directly caused

Hydro dams are built based on historical weather data, which is no longer as reliable for modeling.

the drought? Geological engineering may offer important short-term fixes like carbon capture, but there are many more problems which people need to think about. Environmental issues are not linear and do not have linear solutions.

Long-term systems thinking must be practiced by more engineers and policymakers. The more possibilities you consider in a design, the better. We hear this every day in our engineering courses, but it extends far beyond that, into the economic and legal sectors to name a few. Paskal said “This is not one problem, this is a million problems.

And it requires a million solutions.” She wasn’t just talking about the natural health of the planet; she was talking about how all of the ways the world will change as the environment veers off its thus-far predictable path. Her opinion is just one of many, but it’s hard to deny that we should at least be planning farther ahead than we have been.

Last words offered by Paskal were, “Instead of trying to save the planet, start with affecting your domestic infrastructure, or even trying to understand it.” After the lecture and question period, Paskal made her PowerPoint presentation available to audience members, so if you would like a copy, send me an email (av2lee). You can also look up Cleo Paskal and Global Warring online, or even visit CIGI in person. This signature lecture series is just one of many things that CIGI offers to the community. It hosts a cinema series, noon lecture series, book launches and regular community events, most free and open to the public.

With two CIGI Chairs, Jennifer Clapp and Thomas Homer-Dixon, as professors in Waterloo’s Faculty of Environment, CIGI also has plenty of ties to campus. As engineers, we have a limited number of chances to take courses in social science, so it’s a great idea to take advantage of CIGI’s events (and free coffee- bring a mug). A full calendar is available on their website: www.cigionline.org. At this lecture there were already a few engineering leather jackets on the coat rack, so don’t be shy and give it a try.

National Conference on Women in Engineering



ANJALI GOPAL
1B NANOTECHNOLOGY

Last term, five Waterloo Students headed to Marriott Hotel in downtown Toronto for the 2009 National Conference on Women in Engineering (“NCWIE”). The conference, held annually by the Canadian Federation of Engineering Students, and hosted last year by the University of Toronto, is dedicated to enhancing opportunities for women in the traditionally male-dominated fields of engineering, science, and technology. This year, the conference focused specifically on equipping women with the tools to “Design the World to Come”.

NCWIE had a wide range of events, such as an IBM Panel Discussion, a networking and career fair, and professional

development activities, such as enhancing professionalism through “The First Seven Seconds”. NCWIE also had stimulating round-table discussions, with topics ranging from factors that affect women’s decisions to study engineering, to the reasons behind their professional and social inequalities in today’s society.

However, it was the inspirational speakers at the conference that truly made NCWIE shine. Almost two dozen speakers lectured on subjects such as engineering and business, the research and teaching track, the impact of engineering on society and the environment, and more.

A notable speaker was keynote speaker Diane Freeman. As a wife, a mother, and a professional engineer, she is an excellent role model for female engineers. She has a wide list of impressive accomplishments, including her role as a City Councilor, the President-Elect of Professional Engi-

neers in Ontario, founder of the Butterfly Learning Centre - a non-profit childcare center in Waterloo, and the secretary of the Air and Waste Management Association in Ontario. Ms. Freeman gave a stirring speech about her initial struggles with the engineering profession, and how she broke through her glass-ceiling.

Another inspirational speaker included Milica Radisic, who gave a speech about the status of women scientists and engineers in the research and teaching track. Ms. Radisic—an Assistant Professor at the University of Toronto, who received her Bachelor’s of Engineering from McMaster University, followed by her Ph.D. from the Massachusetts Institute of Technology—also gave us the story of her struggles with the tenure track, especially as a wife and a mother of three children. Nevertheless, she confided that balancing an active research program and a family,

though tough, was definitely doable.

I personally found NCWIE to be an amazing experience—it gave incredible insight into the world of engineering. I was always someone who found engineering to be a little daunting, but listening to the dozens of success stories (with their personal struggles) was both captivating and very motivational. However, it was especially nice to see the male delegates from many schools who were just as determined as their female counterparts to enhance opportunities for women in engineering.

NCWIE occurs annually, and I would highly recommend anyone who is interested in stimulating discussions of women in engineering (and a great networking experience!) to attend. After all, women might still be the minority in engineering, but we’re a minority that will have an undeniable impact on the world in years to come.

Looking ahead: IIE Chapter at Waterloo



YOUSIF AL-KHDER
3A MANAGEMENT

Last Friday, a few Management Engineering students, including myself, went to the Institute of Industrial Engineers 2010 National Student Conference which was hosted by the University of Windsor. It was the first time that Waterloo Engineering undergraduate students attended the conference.

Leaving Waterloo very early in the morning, we arrived to the conference just in time to listen to the first speaker of the day. Dr. Imad Mahawili, a Chemical Engineer from the Imperial College London talked about the importance of renewable energy in sustaining the environment, and the criticality of being creative and innova-

tive when developing devices that harvest renewable energy. Dr. Mahawili mainly discussed energy converted from biomass and wind, saying that these two sources of energy need to expand in the coming years. Lastly, Dr. Mahawili presented to us his innovative invention; a wind turbine that is capable of generating energy at much lower wind speeds and which does not have a gear box, thus requiring less maintenance.

After that, we listened to an EWB presentation by Jonathan Fishbein, a Waterloo graduate in Software Engineering. Jonathan talked about the roles Industrial Engineers can take to help developing nations in Africa. One particular part of the presentation that I found interesting was the discussion about the cultural differences between different nations and how they can easily lead to conflict.

After a short break, we all went to the main hall where we listened to the out-

standing keynote speech by Dr. Marc Garneau, the first Canadian in space. He first talked to us about his job as an engineer with the Navy. Afterwards, he told us that he applied to be an astronaut for the Canadian Space Agency, and described the vigorous training that he had to undertake. Nevertheless, Dr. Garneau reminded us of planet Earth, and the importance of adapting environmentally-friendly behavior. He also encouraged us to think ahead, so that we are capable of solving problems that come up in the future. We were very glad that we had the chance to meet Dr. Marc Garneau and to listen to such an inspirational speech.

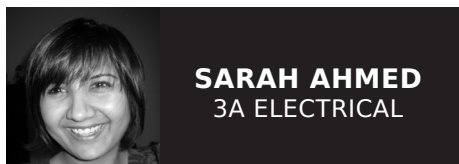
After having lunch and mingling with some fellow Industrial Engineers from Montreal, Professor Samir Elhedhli (Associate Chair Undergraduate Studies of Management Sciences) joined us and asked what we thought of the conference so far.

We also discussed the possibility and the procedures required to start an IIE chapter at Waterloo. The chapter will be established soon, so if you are interested in Industrial Engineering or any related fields, I suggest that you keep an eye out for that.

Later on, we watched while Industrial Engineering students presented their technical projects for a student competition. There were some cool projects that we were able to relate to and some that we haven’t seen before. We then attended a presentation about Industrial Engineering in the healthcare industry, which also proved to be a very interesting and informative talk.

Another delegation of Management Engineering students went to the conference on Saturday to further discuss the possibility of starting a chapter here. If you are interested in joining the chapter, do not hesitate to contact me.

The Co-op Process: Interviews & Employment Stats



SARAH AHMED
3A ELECTRICAL

According to CIBC (Canadian Imperial Bank of Commerce), our economy is slowly recovering from the recession of 2007-2009. It is expected that the economy will experience better growth in the first half of the year (in the words of Financial Post, it will “roar like a lion”), but decelerate in the second half.

This slight boom is from the stimulus package given to corporations last year and the predicted deceleration in the latter half of the year will be due to the possible withdrawal of the package. Currently, the unemployment rate in Canada sits at 8.5% and does not show any change. Also, corporations are more likely to be focusing on repairing damages in this atmosphere than working on advancements.

For University of Waterloo co-op students, it means that those of us working in the Spring term might be successful in ac-

quiring a job, while the students on a co-op term during Fall will have a harder time. In these delicate times, it is crucial that the entire cycle of co-op is dealt with carefully; particularly the interview cycle, as the bulk of the process depends on it.

The entire process of co-op can prove to be rough, even after you have gone through it several times. Searching for the most suitable jobs and customizing your resume to fit their criteria is tedious and frustrating, but necessary. The ranking cycle of the co-op process is the easiest

part, provided you get the job you wanted. Interviews are the most crucial and stressful part of this process.

The worst of it is that, for engineering students, the interviews always seem to fall during the midterm weeks. I once had about 5 interviews during the midterm week (nicknamed ‘hell week’, for these very reasons). The combined tension of interviews and midterms created one of the most embarrassing interviewing experiences for me. When asked what my fa-

vorite website was by an interviewer, my mind blanked for a good five minutes and came up with the Weather Network (my only excuse is that it was the last website I went on).

With hindsight bias, I can come up with a dozen answers that could have made me seem both creative and knowledgeable in worldly affairs. It is with this hindsight bias that I write this article. Dear reader, do not repeat my mistake. When preparing for an interview, focus on more than the obvious questions. Know yourself and your resume inside out and write down some suitable answers in case queries about your personality pop up.

Career Services has a really good, extremely detailed PDF document, called Interview Skills, to help prepare you for an interview. This document can be found at <http://www.careerservices.uwaterloo.ca/resources/InterviewSkills.pdf>

The CECS website does have good interview tips, but they mostly focus on the general areas such knowing your resume

and the company you are applying for. Google ‘Interview Skills’ and go through the top three sites that appear. These tips are beneficial, but they won’t help you add that finishing touch to the much coveted interview.

When preparing for that very important interview, it is helpful to practice it out with a friend. Go over your resume and think of possible questions that could be asked with regards to the position. Also, when researching the company, do not just read the About Us page. Pay attention to the specific projects they are working on and new developments. Mentioning this type of information is a good way to win brownie points with the interviewer.

Sometimes, the interview may be going downhill before you even step into the room. Employers have been known to cut a 45 minute interview to 5 minutes once they have made their decision. There have also been cases where employers have shown up half an hour late and when they have referred to the wrong resume when asking questions. Do not let this deter you from preparing thoroughly for them.

International Genetically Engineered Machine Competition

**BRANDON WANG AND
ANDRE MASELLA**

3A ELECTRICAL & COMPUTER 2008

Engineers build and improve the world. That’s pretty damn amazing. However, consider how much, as engineers, we owe to the world of the past. Without the foundations upon which we build and improve our world, applied science (engineering) wouldn’t have much science to apply.

Let’s consider the world of biology. If I wanted to engineer bacteria to target say, cancerous cells, I have no one canonical method nor standard building blocks by which I would engineer this bacteria. In short, there is no engineering methodology for such a system. Enter the International Genetically Engineered Machine Competition (iGEM).

iGEM is an attempt to answer the question: “Can simple biological systems be built from standard, interchangeable parts and operated in living cells? Or is biology just too complicated to be engineered in this way?” Thus far, the answer to the first question has been a resounding “YES!”. Currently in its sixth year of operation, iGEM is a truly international initiative with participants ranging from Groningen to Tokyo. Its projects range from foundational to application. A small sample of some of the projects include a bacterial scavenger

that searches for heavy metals then floats, an electrically controlled “LCD” made of yeast, and a bacterial Hamiltonian path solver.

This engineering approach to molecular biology has been coined the term synthetic biology. Biological systems are reduced to BioBricks, components that can be connected together in a Lego-like way. Synthetic biology is a new field of research and is wide open to discovery and ingenuity.

Imagine a biological computer whose processing power grows exponentially, or a biological system that will absorb carbon from the atmosphere, or bacteria that generate electricity. Synthetic biology may hold the key to such amazing technologies.

We can be part of an initiative that may change the world in radically profound ways. Waterloo iGEM is UW’s extremely multi-disciplinary iGEM team. Regardless of what your formal training is, you can still get involved. Now, you might be thinking “but I don’t know any biology!” That’s not a problem! Consider when you go on a co-op term, how much you are required to learn on the job. Waterloo iGEM’s needs extend into mathematics, software, administration, marketing, recruitment and of course, biology.

To learn how you can get involved, visit <http://www.igem.uwaterloo.ca> or contact the team at uwigem@gmail.com

Those of us working in the Spring term might be successful in acquiring a job.

IW New Website Revealed

BENJAMIN SHEPHERD
1B MECHANICAL

Similar to the campus, *The Iron Warrior* has undergone some heavy construction as of late. The week of January 19 a new website for *The Iron Warrior* is going to be published along with a host of new features.

The first major feature is the new Commenting ability. At the bottom of each post there will be a form which anybody can use to leave a comment. This is going to open a whole new opportunity for discussion on the articles which will be open and ongoing. These comments will be moderated by the IW staff so please keep them respectful or they will not be posted on the website.

The second major feature will be a more advanced search function. Instead of

searching through *Google* the search field on the new website will search only this website and display comprehensive results for searches by title, author, program, or any text in an article.


An important issue will be incorporating the archives of IW’s previous issues. These will still be available either through the PDF archives on the current website though they will not show up in the new one. There will be a link in the header and footer of the new website to access these.

This website has never been tested on a full scale so for the first few months it will be operating in a beta version. If you encounter any bugs or have any suggestions on how to improve it please feel free to email us at iwarrior@engmail.uwaterloo.ca. Don’t forget to visit the new website at iwarrior.uwaterloo.ca

CECS Volunteer/Internship Fair

Come and visit the volunteer/internship fair organized by Career Services. You can meet with representatives from a variety of local agencies to find out about volunteer opportunities. These agencies specialize in many different areas including: working with children, aiding seniors, caring for people with health issues, organizing art events, and many others. You can choose to volunteer in one of the hundreds of opportunities and gain valuable experience, as well as staying connected with the community. Also, talk with representatives about opportunities that may include: administrative work, event planning/fundraising, marketing, boards and committees, special events and recreation---just to name a few. This event takes place in the Student Life Centre in the Great Hall on **Tuesday January 26th, 2010** from 11:00a.m. to 2:30p.m.

Upcoming CECS Events Calendar

Monday January 18	Tuesday January 19	Wednesday January 20	Thursday January 21	Friday January 22	Saturday January 23	Sunday January 24	Check out up-to-the-day event postings on the CECS website at cecs.uwaterloo.ca
		NexJ Systems 5:00 – 7:00 TC 2218 OANDA 12:00 – 1:00 DC 1304	Shell Canada 11:30-1:30 DC1302 Blue Coat Systems Canada Inc 5:30-7:30 TC2218	Interview Skills: Preparing for Questions 1:30-3:00 TC1208			
Monday January 25	Tuesday January 26	Wednesday January 27	Thursday January 28	Friday January 29	Saturday January 30	Sunday January 31	
Xtreme Labs 5:00-7:00 DC1301 Entrepreneurship - A Student’s Perspective! 12:30-2:00 TC1208	Volunteer/Internship Fair 11:00-2:30 SLC, Interview Skills: Selling Your Skills, 2:30-4:30 TC2218	Basics of Starting a Business 4:30-6:00 TC 1112 Leaving Academia 12:00-2:00 TC 2218	Career Exploration & Decision Making 2:30-4:30 TC 1112 Hot Tips from the Pros! 4-6:00 TC2218				

While You Were Out!



**ADRIANA
CAMERON**
3A MECHANICAL

Over the Fall 2009 term, the ground-breakings for several new buildings took place, a FEDS referendum occurred, Engineering Society B held executive elections, and first year attendance to EngSoc events was higher than anyone could remember. In addition, it was announced that Orientation Week would not be shortened, and the PDEng Independent Review was released. You may have noticed that campus is just a little different from how it was when you left for work term four months ago.

Some of the more visible changes on campus are the two new holes in the ground; in the places where the Math 3 and the Engineering 6 (E6) buildings will soon stand. In late September the groundbreaking for E6 took place. E6 will be located just east of Engineering 5 (E5) in parking lot B. Most of the space in E6 will be dedicated to the Chemical Engineering Department in order to allow students to have access to up-to-date lab facilities, as many of the chemical engineering labs that are presently located in the Douglas Wright Engineering Building (DWE) are aging.

The Faculty of Mathematics will also soon have a new building, as the groundbreaking for Math 3 took place in mid October. Math 3 will be the new home to the Department of Statistics and Actuarial Science. Both buildings are partially funded

by the federal government's *Knowledge Infrastructure* program.

Waterloo can expect a little more construction in the future as a result of the FEDS undergraduate referendum that took place last term. The Health Services building is set to undergo expansion as students voted in favour of a \$10.00 increase to the Student Coordinated Plan fee to fund the expansion.

The Health Services expansion was one of the three referendum questions posed to students in the Fall term. Students were also asked if they supported the addition of \$49.50 to the Student Coordinated Plan fee to contribute to the proposed Student Services Complex, to which the majority of voters voted "No". The \$49.50 fee would have contributed to the construction of the proposed Student Services Complex which would have housed various student services, provided students with social space, study space, and space for various graduate student services.

The majority of voters also voted against a refundable increase of \$2.50 to the Federation of Students Administered Fees to support UW's campus radio station 100.3 SoundFM. The referendum results were close as 2005 voters voted "Yes" to funding SoundFM, while 2460 voters voted "No". The SoundFM "Yes" committee website indicated that the station would likely cease to operate if the fee referendum did not pass. However, a plan was devised that would allow SoundFM to continue to broadcast from a new home in the upper level of Maxwell's Music house on King Street.

The overall voter turnout for the Fall 2009 referendum was about 17%, compared to 13% in the 2008 CKMS and World University Service of Canada Student Refugee Program fee referendum and 34% in the 2007 Universal Bus Pass referendum.

Voter turnout was at an all time high for the Engineering Society B (B-Soc) elections. Approximately 34% of eligible voters voted in the election, with 41% of the total votes coming from first year students. B-Soc's new executive consists of Scott Rankin as President, Alex Hogeveen Rutter as VP Education, Kevin Ling as VP External, Mina Labib and Jon Warren as VP Finance, and Peter Kelly as VP Internal.

The enthusiasm of first year students went well beyond voter turnout. At the Beginning of Term (BOT) Party held in POETS, first year turnout was so large that POETS hit capacity, resulting in many being turned away at the door. As a result subsequent Of-Term parties were held in Bomber to accommodate the large turnout. Likewise EngSoc meeting attendance was such that the meetings needed to be moved to the large RCH 101 lecture hall so that everyone could have a seat.

Hopefully frosh enthusiasm will continue to grow, as frosh week will indeed be a full week this year, as opposed to the shortened week proposed by the Registrar's Office. When we left campus for the work term, there was still much uncertainty as to the length of frosh week, because the Registrar's Office proposed a shortened orientation period as a means to ensure that students receive the 60 required teaching days

in the semester. Semester length is an issue because of the late Labour Day holiday in 2010. The other option to achieve the 60 teaching days involved holding a day of Saturday classes. In a November Senate meeting, senators voted on the issue, with the vote resulting in a tie. In late November, after student senators spoke with the Provost it was announced that Orientation Week would run as a full week event.

While all of this was taking place on campus, it was likely that you were performing the work term Tuesday night tradition of completing PDEng assignments. Changes to the PDEng programme are more than likely in the near future as a result of the long awaited release of the PDEng Independent Review in October. The review addressed six aspects of the programme: programme objective, curriculum content, programme delivery, programme administration, relationship to the other aspects of the Engineering curriculum, and additional opportunities that can be realized through the PDEng Programme. Based on these programme aspects, the reviewers made six recommendations. Students were then able to provide feedback on these recommendations using a feedback tool on the EngSoc website. Following the release of the review, Dean Adel Sedra created a small task force, with the intention of having a complete renewal plan completed by April 30, 2010.

The last four months have been fairly eventful. Hopefully we'll see the new buildings get taller, continued first year enthusiasm and the renewal plan from the PDEng task force in the upcoming term.

WaveLab @ Waterloo

MOE ADHAM
4B MECHATRONICS

The Waterloo Autonomous Vehicles Laboratory (WaveLab) opened in September and has some interesting and far reaching research goals. Professor Steven L. Waslander, who runs the lab, is one of a number of professors undertaking research that has a great benefit to engineering undergraduate and graduate students. I sat down with Professor Waslander to get a better idea of his research, the WaveLab, and its goals going forward.

The WaveLab currently has 6 graduate students and is undertaking some cutting edge research. The problem: how can we get small vehicles to be autonomous? The solution is where the fun happens. The WaveLab is currently focusing on aerial quad-rotor vehicles, as seen in the photograph. These vehicles are small, lightweight, autonomous aircrafts that are able to carry a camera, as well as a small payload. Making these vehicles autonomous is no simple task. How can these vehicles fly around unknown environments? How can multiple vehicles interact with each other to avoid mid-air collisions? How can all this be done with technology that is cheap and light enough to fit on such a small platform? The solution to each of these problems is the focus of the research being done: perception, planning and coordination. The engineering knowledge needed to accomplish these goals can be traced back to many familiar engineering courses, such as control theory, planning algorithms, sensors, image processing, aerodynamics, optimization, and statistics.

The goals of Professor Waslander's research is not constrained to aerial vehicles; he has some very exciting long term goals. While most of the current research

is on quad-rotor aerial vehicles, ground vehicles are also a big part of this type of research. As the lab matures and as funding becomes available, work on larger scale autonomous vehicles is a priority; the department even has access to two Lexus SUV, with plans for use as autonomous vehicle platforms.

The applications of this work are already making a foothold in the region. Three UW graduate students recently launched Aeryon Labs Inc. The small startup, based out of Waterloo, designs and sells small scale quad-rotor aircraft for commercial and research applications. There are a number of other competitors in the field as well. Some interesting commercial applications include police/military surveillance as well as bridge, tunnel and pipe inspection. While autonomous aircraft from mega-corporations such as Boeing and Northrup-Grumman may be more costly, in many ways the work done in the area of small-scale aircraft can be more complicated. These crafts have to navigate very narrow environments, with little to no room for error; UAV rarely have anything to collide with.

Students who are interested in this type of research have a lot of ways to get involved. First off, they can join the Waterloo Aerial Robotics Group (WARG), who have a new vehicle that can take off and land vertically like a helicopter, but fly horizontally like a conventional plane. There is also the UW Micro Aerial Vehicle Team (UWMAV). The team plans on competing in the 2010 International Micro-Air Vehicles competition in Germany. There are a number of 4th year design projects available for these teams as well in the WaveLab. If interested, feel free to check out <http://autonomous.uwaterloo.ca/waslander>, or the teams' respective websites.



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THE UNIVERSITY OF BRITISH COLUMBIA

ENGINEERING SOCIETY EXECUTIVE REPORTS

Acting Presidential Report



MIKE MCCAULEY
ACTING PRESIDENT

Welcome back to campus!! Hopefully you have been enjoying the first few weeks of classes and you have had a chance to check out some of the planned events.

I would firstly like to address our unique situation this term. As I mentioned at the first EngSoc meeting, things are a little different but here's how we have divided the Presidential responsibilities between the execs: David will be taking on most of the meetings that the President attends except E & P which I will be taking care of, Eric will be working closely with the POETS Managers, Tim will be the man of the Orifice, and I will be picking up the rest. We are all very excited about the upcoming term! Feel free to speak with any of us at anytime if you have any concerns or ideas you'd like to share – we are all happy to talk with you!

As many of you know, we decided to host BOT at SCH this term and we'd

like to hear how you enjoyed the venue change. POETS has a limited capacity (90 people) and we had an awesome turnout of over 200 at BOT this term. We are still considering locations for MOT (Bomber is a possibility) so let us know what you think!

Paul & Paula Plummer Nominations: The P&P award is presented to graduating students who have contributed to the benefit of the Engineering Society in a manner deemed to be outstanding and commendable, and who have shown a genuine caring for school spirit and the status of student life within the Faculty of Engineering. We will be accepting nominations for this award at the next EngSoc meeting (Jan 27) as well as by email. Presentations about the nominees will happen at the following meeting on February 3.

Lastly, my main goal for the term is to ensure everything runs as smoothly as possible given our unique situation on Exec. I encourage all of you to stop me in the hall and express any ideas or concerns you have with me – I would be happy to hear from you! Hope to see you all out at the next meeting (Jan. 27).

VP External Report



MIKE MCCAULEY
VP-EXTERNAL

Welcome back everyone! I hope you all had an enjoyable work term and are excited to be back on campus. I'll start off with a quick recap of what's happened in the external world the last few months.

I had the pleasure of representing you at ESSCO (Engineering Student Societies Council of Ontario) Presidents Meeting in Sudbury in September, as well as the CFES (Canadian Federation of Engineering Students) Presidents Meeting in Vancouver in October. Both were very beneficial and I was able to learn a lot from other schools. NCWIE (National Conference on Women in Engineering) and the PEO Student Conference followed in November and we had great A-Soc representation at both of these as well – thank you for those of you who applied and attended! Most recently, the CFES Congress took place in

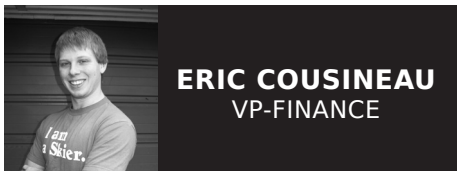
Hamilton the first week of the term and I encourage you to read the full feature article on it in this issue.

Coming up at the end of the month is the Ontario Engineering Competition which is being hosted by our very own Waterloo campus so keep your eye on the last weekend of January! Good luck to everyone who will be representing us later this month!

In other news, ESSCO is going to be putting together a hockey tournament and I would definitely like to enter a team from Waterloo, so keep an ear out for more info on that coming soon! And finally, ESSCO is putting together an event to celebrate National Engineering Month. On February 27, schools across Ontario will be coordinating a Rube Goldberg machine and we need your help! If you are interested in being the main contact for Waterloo, please let me know.

That's all for now! Feel free to stop by the office or email me if you would like to know more about anything I've mentioned.

VP Finance Report



ERIC COUSINEAU
VP-FINANCE

Hey Awesome People!

Directorship budget proposals are due to me by 4:30 pm on **Monday, January 25th**. If you want money this term, then you need to submit a budget. You shouldn't need me to tell you that you want money, right?

Novelties is off to a great start, and we're already looking for new ideas for items. If you have some ideas, please tell me, I would love to hear them. We have stylish toques and scarves for you to wear on cold winter days.

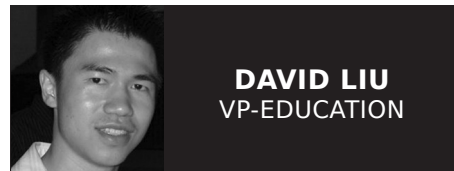
Have you seen all those sexy people walking around in those delicious leather jackets? Well don't you want to be sexy too? Well now you can, for less money

than ever before! Leather jacket day will be held in SCH concourse on **Wednesday Jan. 27th**. For a low, low price of \$390 + tax, you can now achieve sexy status! If you think that is too much money, let me add a few comments. They work amazingly as winter jackets, they are now cheaper than ever before since Retail Services lowered the price, and it will make the men/women flock to you like engineers to an open bar. So go to SCH concourse on Jan 27th between 10:00 am and 3:00 pm, and you can be cool too!

Coming soon POETS: Warrior Lager!! What's that you say? That's right, the legendary beer pictured on the front doors, will soon be for sale in POETS. I hope you're excited, I AM! My current estimate is that it will be available this Thursday/Friday.

Have a good fortnight homeslices!
Eric Cousineau
Engineering Society 'A' VP Finance

VP Education Report



DAVID LIU
VP-EDUCATION

Hey A-Soc!

This is my 2nd and last term being the VP Education for Engineering Society and we have a lot of work to do. My priority this term is PDEng. The Dean of Engineering has appointed a Task Force Team comprising of the following individuals: Wayne Parker, Associate Dean Cooperative Education and Professional Affairs (Task Force Team Chair); Dan Davison, Associate Chair Electrical and Computer Engineering; Tom Duever, Chemical Engineering Chair; Peggy Jarvie, CECS Executive Director; Carolyn MacGregor, PDEng director; Sasha Avrelina and myself. This time there will be changes. The Task Force Team will meet twice a week to discuss PDEng changes, starting with the fundamental assumptions. Final decisions will be made by April 30th, 2010. The question is not "What can Task Force Team change?", but "What needs to be changed?" and "How should it be changed?". Thus, your input will extremely valuable and you can email me at s14liu@uwaterloo.ca with any comments (confidential or not). The progress of the Task Force Team will be available to students via the Dean of Engineering website. There will be two student/faculty feedback milestones for us to provide thorough feedback. Thus, this is our best and only chance to change PDEng for the better. So get involved and engaged. Talk to your academic class reps and among yourselves and let me know.

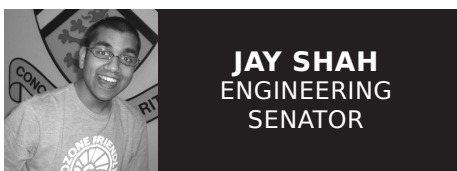
Resume Critique sessions had large turn-out last Tuesday and Thursday. I'd like to thank Alroy Almeida, Michael Bieniek, Praveen

Arichandran and Yousif Al-Khder for their efforts. If you are still in need of a resume critique, email Alroy at aaalmeida@uwaterloo.ca or Michael at mpbieniek@gmail.com. There will also be more resume critique sessions for 2nd round postings.

We had our 1st academic rep meeting last Thursday and it was a great success. Thanks to Anish Bhutani and Misakura Tsukimoto for organizing the meeting. We discussed 3 issues – Faculty access to Exam Bank, PDEng and Light It Up, my own software project. It's important to note that majority of academic reps at the meeting felt that we, as the Engineering Student Society, should give view access of our exam bank to the respective Faculty members.

That's it for now. Get involved this term with the PDEng, election and community building.

Senator's Report



JAY SHAH
ENGINEERING
SENATOR

Happy New Year & welcome back to campus everyone!

Last term was a busy one for Senate, primarily because of the issues surrounding setting academic dates for the 2010/11 Calendar, which transformed itself into an issue surrounding the length of orientation week. Adriana Cameron wrote a very informative article in the last issue (12/3/2009) of Iron Warrior that gives insight into what happened last term. In short: To prevent future problems in achieving the 60 teaching day minimum, it was proposed by the Registrar that Orientation week be shortened. There was massive student disapproval of this idea, and as such the student senators worked hard to convey our opinions at Senate and to the Provost (Feridun Hamdullahpur). While the whole process wasn't easy, at the end of the day Feridun was very receptive to our concerns and agreed that

Orientation week should be unchanged for 2010, and a proper consultation with students would be the best course of action to determine the future of orientation beyond 2010.

To paraphrase our Provost, he said that his biggest fear is creating a sense of students versus administration. He will work at all times to ensure he is working FOR the students. He continued by saying that the "Administration's" job, at the end of the day, is to support students. Lastly, he wants everyone to know that the people "up there in the administration" are actual PEOPLE too ;) Feridun has scheduled a meeting with the student senators later this month to begin formulating the next steps we must take; I look forward to continuing to represent you in the coming months.

The first Senate meeting of 2010 was scheduled for January 18th. I will provide an update regarding the events at that meeting in the next Iron Warrior article.

You can always reach me at senate@engmail. Never forget, the rhythm of this university stems from the heart of its students. Keep being proactive!

2010 YEARBOOK

I am sure everyone is enjoying their last few months of Undergrad. Only a couple weeks before we get ringed...YAY!

For your memories to last forever, you would have taken pictures. To make it even more memorable send them to the Yearbook staff. Send us any pictures from class parties, Frosh Week, projects, 'OTs or even any random pictures with your friends.

Contact your Yearbook Class Rep or email your pictures to yearbook2010@googlegroups.com.

Send us the pictures and help us give you an awesome yearbook!

Do YOU want to be in the yearbook?

POETS COFFEE HOUSE!

Welcome back to campus A-socers! Next Thursday January 21 is the first Engineering Society Coffee House of 2010. Come on out and see local musicians play and enjoy some beverages and food. The Coffee House starts at 7pm and goes until 9pm. For those only attending the more the merrier, so why not come out and relax to some music, food and drink? For those who are interested in performing the sign-up sheet is on the orifice door. Don't be shy, sign up now!

Your music directors, Sean & Griff

ENGINEERING SOCIETY EXECUTIVE REPORTS

WEEF Report



JAY SHAH
WEEF DIRECTOR

Welcome back to campus everyone!
SIX THINGS, you may not have known about the Waterloo Engineering Endowment Foundation (W.E.E.F):

1) The allocation of WEEF money is 100% decided by students.

The Funding Council that decides what organizations/teams/departments is composed of one member of every undergrad engineering class that is on-campus for that term. There is no faculty or UW Admin on this council, so the money goes where the students say it goes.

2) WEEF has indirectly funded \$4 000 000 dollars of the soon to open E5, Student Design Center.

WEEF provided \$1 000 000, which was matched by the Faculty. The University then matched both WEEF's and the Faculty's contributions. This is an unbelievable

accomplishment for a 100% student run endowment fund that is only 20 years old.

3) WEEF offers funding and expects nothing back in return.

When it comes to funding lab equipment and student teams, this is rare. WEEF enables positive student learning experiences at UW both inside and outside the classroom.

4) Quick Stats:

* WEEF currently allocates ~\$85 000 per term in funding (for student teams, department requests, lab upgrades, machine shop etc.)

* WEEF's principal amount is

\$8 500 000

* MIT's principal amount is over

\$10 000 000 000

5) WEEF is for students by students.

By donating to WEEF, you are contributing to UW Engineering's reputation. Better/more lab equipment means better education for you and your successors and supporting excellence within our student teams really help make us recognized internationally as one of the top engineering

schools in North America.

6) Your WEEF Refund is TAX DEDUCTABLE.

Your donation receipt will be mailed to you. You end up paying less tax and in the process you help yourself, your university and all the engineers around you.

FOUR THINGS, about WEEF this term:

1. WEEF Returns are available online until January 22nd @ www.weef.uwaterloo.ca If you have any questions about getting your return, feel free to email me (weef@engmail)

2. Funding proposals for the Winter 2010 term are due Feb. 15, 11:59 pm. Check our website for details and to download the funding form.

3. WEEF's Principal Amount (the amount from which we generate interest, which is what spend) Reached the \$8.5 million mark last term! Hurray!

4. WEEF turns 20 years old this year; it's no longer a teenager! Watch out for WEEF's birthday party later this term.

VP Internal Report



TIM BANDURA
VP-INTERNAL

Woah! What a busy past few weeks of awesome! It's so great to see everyone again. Sorry I wasn't around the first week, I was in Hamilton for Congress. It was a great time! I met a lot of people from various schools across Canada, and we shared a lot of good times and information. But I missed all of you!

I'd just like to say a quick thanks to my Frosh Mentoring Directors for running Frost Week. It was a great time! I enjoyed traybogganing and manhunt and all the other fun activities.

Upcoming events include a Coffee House on Thursday, January 21st, and our next council meeting on Wednesday, January 27th. Also, Genius Bowl, our termly quiz challenge extraordinaire, is happening on February 1st! Keep an eye out for more details!

Have a good term!

POETS - Movies, 'OTs & More!

POETS MANAGERS WINTER 2010

POETS is under new management and that means new awesome events and initiatives designed to make you feel right at home. First a quick introduction of POETS and your new managers.

POETS is an acronym for *Piss On Everything Tomorrow's Saturday* (can also be Sunday) and is the engineering student lounge located in CPH beside the Coffee and Donut shop. We are the only faculty pub on campus with bar services being available most Thursday and Fridays between 12 and 4pm. Programms are scheduled from 12 until around 5 most days which can be anything from movies, TV shows or open mic performances. It is a popular spot to eat lunch and socialize with fellow engineers and provides a comfy spot to chill.

The four people who will be bringing you a clean, relaxed and awesome POETS environment this term are Kim Broten, Scott

Hooker, Cat Hay and Mike Seliske. We will be choosing all of the movies and TV shows and will be making all of your OTs (Of Term parties) super awesome. We have also planned a few special things this term that we hope you will enjoy.



Eric Cousineau

The first of these events is the Thursday theme contest. Three movies will be chosen on Thursdays which share a common theme. The first person to tell the person working in the Orifice the correct theme wins a prize.

The winter term always brings some good chances to have big get togethers, which come in the form of Super Bowl and St.Patrick's day - POETS has you covered in both respects. On Sunday February 7th POETS will be hosting a Super Bowl party of epic proportions. Bar Services will be in attendance as well as free snacks and pop. This will also be a potluck event so bring your favorite pub grub. POETS will also be operating normally on St.Patrick's day but will be changing it up by serving green beer as well as being decorated in the classic Irish style.

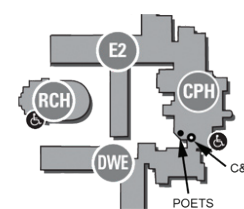
All of our programs can be found in a Google calendar (search POETS Programming) which outlines exactly what we will be playing everyday so add it to yours and drop by POETS for a break, a beer or to catch a sweet flick.

Kim, Scott, Cat and Mike

MORE THAN JUST COFFEE & DONUTS

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

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



ENGINEERING SOCIETY



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



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Work Term Report Awards recognizing your outstanding work term reports

Visit our website to learn more about these and other awards

<http://www.eng.uwaterloo.ca/~sff/>

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

Say Hello to FOC 2010!!!

Howdy howdy!

We are your EngFOC for Frosh Week 2010, and we can't wait to help the frosh of 2015 have the best week of their lives! There are only six of us though, so we're going to need all the help we can get from you! There's plenty of work to be done, so we'll need Bigs, Huges and EDCOMs to ensure that everything runs as smoothly as possible. Orientation week is even more fun as a leader than as a frosh, and there are enough awesome moments to make your head spin - just ask the returning leaders! This year, we have added the position of Video Guru to the lineup - fancy yourself handy with a video camera? Have a good eye for photography? Then you can be the one who helps preserve the memories of Frosh Week 20-X for years to come.

If you want to join us for what will most surely be an incredible week of epic proportions, head right on over to www.eng.uwaterloo.ca/~foc and start applying! Applications are due before 11:59pm on **Thursday, January 21.**

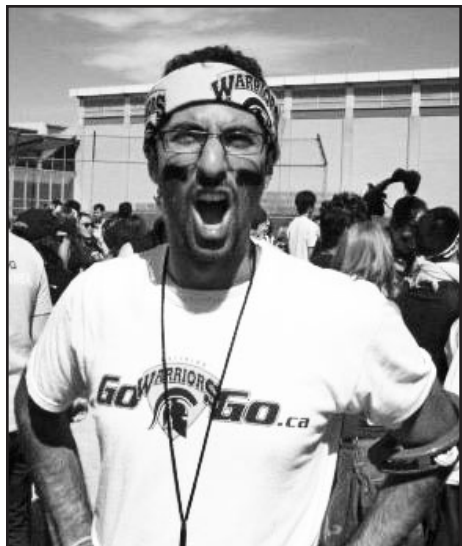
If you are applying for Huge, Video Guru or EDCOM, then you need to sign up for an interview on January 23rd or 24th. The sign-up sheet can be found on the Orifice door. If you're coming from out of town to see us, just email us instead at engfoc10@gmail.com to reserve a spot. If you were on B-Soc during the Fall term and missed your chance to interview, it's not too late to sign up now.

If you're a first time leader (first year or upper year) you will need to complete Orientation Leader Training pronto! Fortunately, there are a number of sessions offered in the coming months, and we will keep you posted for more information about them. If you have any other questions or just want to chat, give us a shout at engfoc10@gmail.com

See you all soon!

Nizar Hasan

There was a once a great man by the name of Nerlin the NIZard. He loved all things Nagic and dreamed that one day life



would be filled with all things Naterloo. He had a pet Nowl, wore an inNIZibility cloak and powerfully pointed his Nand. He was a God-fearing, sensible man, wanting nothing but the ability to fly. He enjoyed squash (not the vegetable), spoke Narabic, and loved using his hard hat as a Nortkey. One day he saw into the future: an epic battle will arise between 6 houses. He saw his great, great, great, great, grandson, lil Nizzle, fighting alongside Warriors with hats of all colours. And suddenly it went black...Nerlin had too much to drink the night before. And so the story ends leaving us to wonder if lil Nizzle was anything like Nerlin. Will the Warriors stand united and win the battle? It seemed that anything was possible at Naterloo...

Yes it is ladies and gentleman. Orientation will be great, you will be great and the events will be unforgettable! I am truly

honoured and blessed to be taking part in this awesome week and to be working with all of you. My three years of residence orientation experience (in 3 different roles) will hopefully help me give back to Orientation 2010 all that it has given me. I can't wait to help lead Engineering Orientation to the best it could be, and that starts now. EN GARDE annnnnnd GO!

Cassandra Leal



Some may say Cassandra was once a giraffe. With legs and arms long enough to touch ceilings, and an appetite for nomenclature organic food that rivals that of woodland creatures, Cassandra would seem to be at home with the animals of our planet. That may be true, but with one exception... the geese. Between counting down to the Vancouver Olympics, checking websites about average lives, or reading books about vampires or wizards, she hardly ever encounters the beasts. However, if the two do cross paths, it is of no surprise to see one of them cower and hide while the goose boasts and struts. For as long as SeanO has had a beard, Cassandra has had an unexplainable fear of the waddling, squawking, hissing, pooping, swimming and flying creatures.

Although she may appear to have a gentle and approachable demeanour, never make the one fatal error that will enrage her above all others. Never say M&M's are the same things as Smarties. Some may wonder why she left her home in Brampton to pursue her career as a Civil Engineer at UW, however, those who are close know the real reason -to be part of FOC!

Hi! I'm Cassandra, and I'm really excited to be a member of the EngFOC team for 2010! I've been involved with residence orientation and faculty orientation (twice) and I hope to bring that experience towards making Orientation Week 2010 amazing for the incoming students. I am prepared to speak with all of you who have ideas for the upcoming week, and I am excited about all the responsibility this position brings! Do it live!

Stuart Pearson

As a child, his greatest ambition in life was to be a whale. Once he realized that an aquatic lifestyle was not in the cards, he traversed the globe, looking for enter-



tainment to brighten his sorrows. Some of his adventures included fruit-fighting in the Scottish Highlands and spoon-fighting on the Alberta Oil Sands. One day, whilst swimming from Labrador to Iceland, he was attacked by pirates, and forced into labour as a mime. He spent several silent, agonizing years imprisoned in an invisible box on board their ship, surviving only on a diet of orange peels and asparagus.

In a last-ditch effort to escape his life as a pirate, he decided that he wanted to be an owl. In an improbable turn of events, he sprouted feathers and flew away to Saskatchewan. This was all well and good until he experienced an "unfortunate hunting accident" and lost an eye. That was the last straw. Stuart had enough of his life as an adventurer, and settled down as a Civil Engineering student. Now in his third year at Waterloo, he has taken on the role of FOC for Frosh Week 2010. Unverified reports claim that he "has a bit of a thing for Frosh Week" and is "just a teensy bit excited". Time will tell.

Sean O'Neill

I'm supposed to write a bit about myself and so I thought, "Who better to describe me than a Tibetan monk?" but since I don't have a Tibetan monk, I thought I would ask



my friends to come up with a few words that they think describe me and I would put them down as they came into my inbox.

Here they are: "a-MAZ-ing, Beyond Belief, A Mime, All Of The Ghostbusters Combined, Awesome, Bear(x3), Beard(x7), Beardalicious, Bearded, Beardy, Burly, Contagious Smile, Cuddly (x4), Curious, Dance-Factory, Disobedient Xylophone, Fearsomely Beardful, Feynman-esque, Fuzzy, Hot Casserole Of Smiles, Idiosyncratic, Inverted Fire-hydrant, Knight In Shining Armor, Lumberjack, Man-Tastic (x2), Maze, Manbearpig, Military Grade Super Cat, Organized, Peculiar, Pure Unadulterated Awesome, Quirky, Sexy, Tactical Mannequin, Teddy Bear, Evil Teddy Bear, Whimsical, White-Man's Mr. T." (Some of these don't make sense...). A wise old man once had this to say: "I think the best way I can describe him is "delicious". Sean-Oh is the archetypal engineer: grizzled and thirsty. His beard was the real cause behind the shipwreck of the Titanic (you thought it was an iceberg; didn't you?) and to this day you can still hear the faint groans of the metal hull sinking ever deeper into it. His words are like honey to your ears. Future world leaders constantly time-travel to meet him for advice, inexplicably returning to their time with armfuls of cowbells. He is the world's least non-interesting man."

I'm looking forward to working with all of you over the next year and I'm ridiculously excited to be one of your new FOC. I have always loved orientation week, and am going to do my best to make sure this week is just as good as or better than the one you remember having. I've been involved in frosh week since first year and I've held every ENG position at least once so I'm pretty experienced overall. Let's get to it!

Jameela (Jam) Derrick

Born of a volcano in the vast Pacific Ocean, Jam emerged from the beautiful aquamarine waves on her 17th birthday and dismounted her pet seahorse . . . PB. "It's time" she thought to herself, "to leave behind the taming of the wild Fijian eight-toed sloth and make my mark on this, the 21st century." PB neighed (seahorses do that too . . . right?) with sadness at the loss of his perfect condiment counterpart, and dove into the waves, never to be seen again.

Jam got on her hovercraft and spent the next 4 months with a zebra high-tailing it to Cambridge, ON, where she spent the first four semesters of her university career trapped in a three-storey red brick dungeon, learning about architecture, and waiting for that fateful week in September when all would be right with the world.

That's right, O-week 20-X.

Could I be more excited? Only if I could . . . no, I couldn't.

Will I jump and/or dance on/near you at some point during the week? Count on it! Will you make memories to last a super long time? Only if you somehow manage to master using the majority of your five senses simultaneously. Don't worry, you've been practicing all your life, you should be a pro.

In all serious, it'll be awesome. Mainly 'cause you'll be there, and all the FOC will be there . . . and anyone worth knowing, or anything worth doing will also be making a guest appearance.

Brent Carson

Brenteth of Carson hails from the forest city. He has traveled through the wide world but found nothing that would satisfy his wandering heart completely. He had



many adventures and learned all that he could in the fields of math, science, art and language whilst growing out his long luscious brown locks. For a time he swam the seven seas, after having ceremoniously cut off his luscious locks so as to better guard the lives of those he encountered.

Where he could no longer swim, he skated teaching those around him the joys of speeding across the ice on a pair of blades. As chance would have it, he landed among a tribe of valiant warriors deep in the heart of the Waterloo jungle where he joined the architecture house in their clan. Impressed by their skill and knowledge of the world he stayed among them to learn their ways and ascend to their level of greatness. Now, a third year architecture student, he is on a journey of legendary proportions with the rest of FOC to prepare the most awesome welcome for all new comers into their Warrior clan in 2010.



Winter Adventures

Hills, skates & hot chocolates



ROY LEE
1B NANOTECHNOLOGY

IT'S WINTER TIME!!! Personally my favourite season! Before you start hating me for saying that, know this: I am a proud Calgarian. Most of the time that explains everything, or is enough to get a nod of understanding.

If you aren't big on winter hear me out; if you are, well then get out there and enjoy it. You might be telling yourself that winter is lame. "I'm stuck inside all the time with nothing to do." Here's the secret: suck it up, go wrap yourself up in warm winter clothes, some boots (maybe, but highly recommended) and go find yourself a toboggan and a hill. This may sound childish, but it's one of the best things in the world and a whole lot cheaper than going skiing or snowboarding. This is important because we are all starving students. More importantly, I warn you now, tobogganing can be a dangerous activity (people have gotten concussions and broken bones), but if you are smart and don't wipe out at the bottom of the hill; it is well worth the fun and the cold.

Maybe you are not up for such dangerous and exhilarating fun. Then I suggest you go skating. Grab a few friends: some that can skate, some that can't (these ones are fun to watch as they learn to skate and wave their arms around like flying geese). Uptown Waterloo even has a free open skating rink for people to enjoy. From what I've heard this is the first year

they've done it, so go use it and hopefully with high participation they will do it again next winter. So maybe you still aren't up for the cold. Go find yourself a restaurant that offers Hot Pot; these are awesome if you aren't into the cold because you'll have a boiling pot of soup in front of you! You cook and eat delicious pre-cut meats, seafoods, vegetables and noodles. But be warned again, make sure you don't order anything strange like pig uteri (if you enjoy eating this, I am sorry, but I find it terribly strange). Lastly and most importantly, end off each outing with a round of hot chocolate and some cuddling on a couch, watching a movie/ tv show that you enjoy.



Stuart Pearson

Frosh and upper years alike enjoy winter fun

Frost Week

Purpling, Manhunt & The TOOL



ANJALI GOPAL
1B NANOTECHNOLOGY

What do a trash can, a bush, and a sandbox have in common? They're all prime hiding spots for Manhunt, one of the many activities hosted at this year's Frost Week. What is Frost Week? It's your winter equivalent to Frosh Week—except it's not only for frosh!

Throughout the week, the "Fantastic Four", Chris Szybalski, Kristen Roberts, Marc Tan and Stuart Pearson, worked long and hard to pull off over half-a-

dozen events for Frost Week. They held events such as Purpling (too bad there were no interviews going on this week!), pictures with the TOOL, a teams/clubs fair, and a free hot breakfast (giving perhaps the one and only reason to get out of bed at 8 am). All of these events were essential to integrate a healthy, happy, and wholesome frosh back into EngSoc and the Winter '10 term.

But it didn't just stop there! The fantastic four also planned Manhunt, "Tray-bogganing" at the Columbia Ice Fields and "Krazy Competitions", a 'snow-fun' extravaganza! Manhunt was a gigantic version of tag, which gave all frosh essential fitness practice that—let's be honest—most of us don't get as often as we should. And who wouldn't want to try tobogganing with trays?

What did the frosh say? Anyone who went out to the events loved it!

"It was lots of fun!" said Hans Tee, a 1B Nanotechnology Frosh. "It was just like tobogganing! I would definitely do it again!"

Farzana Yusufali, another 1B Nano, found the clubs/teams fair a great way to get more involved with EngSoc. Many upper year students also took the advantage of Frost Week to purple themselves for the first EngSoc meeting of the term, adding amazing spirit and exuberance to the meeting.

Frost Week was a great way to ditch any remaining start-of-term blues. It was cold, fun and a great way to break out into winter spirit. And we first-year students are definitely looking forward to see what the Frosh mentors have in store for us next!

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UNIVERSITY OF
WATERLOO



POINT VS. COUNTERPOINT

POINT

ALEX GIROUX
4B MECHANICAL

The airline industry has long relied on metal detectors to prevent terrorist attacks and hijackings. However, on Christmas Day 2009, a passenger on a Northwest Airlines flight from Amsterdam to Detroit attempted to blow up the plane he was on, using materials that did not register on metal detectors. Clearly the technology in use is outdated and a new alternative should be found.

The solution being put forward by many airline security organizations is to purchase and install full body scanners that take a picture of you, similar to a CAT scan or an MRI. However, instead of a picture of your insides, these scanners take a picture of you under your clothes. Yes, naked. This has many people up in arms, primarily over privacy concerns and the fear that images of minors will be used as child pornography. Taking all things into consideration, as long as there are precautions taken to protect the scannees' privacy and dignity, I'd say that full body scanners are a good thing. I travel fairly frequently, and after an interesting incident that occurred at Pearson Airport prior to flying home for Christmas, I'm all up for not being frisked whenever my belt, my shoes, my earrings, my watch, or the metal samples that I forgot to take out of my pocket set off the metal detectors. OK, that last one hasn't happened to me, but it's a possibility. And let's face it. Yes, you can teach someone how to properly conduct a pat-down, but when there are security lines from the checkpoint to the other side of the airport, somebody's going to get unexpectedly groped. And chances are, while the person who forgot to take off their belt is being frisked, the guy who's the REAL security threat is going to waltz on by the screeners with nary a care in the world. Remember, metal detectors are only effective at detecting metal. They're not so good at finding plastic explosives sewn into someone's underwear.

Yes folks, I'm tired of risking being frisked in front of the other 50 people waiting in line because I forgot to take off my belt. I'm tired of waiting in line while that little old lady who's had both her hips replaced is being searched because she set off the metal detector, even though she's explained that she's had hip replacements and she's clearly not a threat, since she can't run due to said hip replacements. There are definitely alternatives to these body scanners. There's an article that's been circulating the internet about the

Should Full Body Scanners be installed at Canadian Airports?

security measures at Ben Guiron Airport in Israel. Rather than one level of screening, there are multiple minor checkpoints there, with highly trained personnel staffing the checkpoints. At any one of these checkpoints, personnel are authorized to pull people over for additional screening. This results in a very high level of security. However, it takes time to implement this system, to set up checkpoints and to hire and train personnel. I've also flown out of the New Delhi airport, where they had screened off areas for men and women, and they patted down EVERYONE who was entering the secure area.

Finally, public response to these scanners has, to my knowledge not been great. There are privacy concerns. But the fact remains that there is a price to be paid for security. I can't imagine people here in Canada reacting any better to implementing a system of multiple checkpoints. In other countries, being patted down or going through checkpoints is just a fact of life, and if you are not a threat then there is no reason you should be worried. The full body scanners are programmed not to store images (though I can accept that there may be a manual option to store an image of a person who is deemed a threat), and the person observing the images to assess threats will be in a separate room, so

Metal detectors are only effective at detecting metal, not plastic

that the images of people will not be visible to the total strangers who are also going through security screening. Passengers are also able to opt to be patted down by security personnel instead of passing through the scanner. However, it has been my experience that most airport security checkpoints are not equipped with a separate, screened off area to pat down those who are selected as it is, so chances are you're not actually retaining any sense of privacy.

The other concern is that images of those under 18 will be used as child pornography. Again, the images collected by the scanners are not stored, and there are safeguards taken to protect the identity of the passengers. However, I do admit that this is a valid concern, particularly when it comes to selecting and training those that will be observing the scanned images. Since this does leave a rather horrible loophole for terrorists, I suggest that parents traveling with small children and those under 18 all be subject to additional screening and bag searches.

Full body scanners in airports are not an option that should be chosen lightly. But given recent events, our only other option right now would be to require all airline passengers to wear Speedos. And that can't be a good option.

AMANDA LEDUC
3A MANAGEMENT

Have you heard about the latest method of ramping up of security at airports around the world? Involuntary strip searches for everybody! The best part is, you don't even have to remove your clothes, security can see right through them. Isn't that awesome? NOT!

In the post 9/11 world, we air travelers have learned to accept excessive security measures because they are "for our own good". Aside from the usual metal detectors, random checks are also being adopted. In fact, each of the three times I flew out of the Calgary Airport during the fall term, I was "randomly selected" to be patted down even though I didn't beep. The third and final time it happened, I explained to the security lady that this was my third time being randomly selected and asked how they pick people.

She responded, "Oh, I pick people who look friendly and won't give me a hard time if I approach them for additional security screening". Are you kidding me? Do you think the guy who strapped a bomb to his crotch on Christmas looked cheery going through security? I highly doubt he was happy to blow his body to bits. So, based on the criteria that Calgary Airport uses to select individuals for additional security screening, he likely wouldn't have been selected. Instead, some friendly looking young lady (like me) was likely selected.

To fix this type of issue, everybody will soon have to pass through a body scanner which sees through your clothes, right down to your personal business. It reveals everything from implants to hidden piercings, and hopefully, bombs. At the moment, these scanners are in the testing phase at a few airports in Canada and travelers are given the option to go through normal metal detector testing, instead of stepping into the scanner. As long as scanner use remains voluntary, it's fine. If someone prefers to skip the metal detector line-up for the shorter body scanner line up, that is their prerogative. Personally, I would rather wait in line than have some security personnel see through my clothing.

But wait, they want to make this experience as comfortable and non-awkward as possible, so the security people viewing the images are in a separate room from you altogether. You should feel much better not being able to hear the comments and lewd remarks being made by the "highly trained" security staff. They also claim that the images will not be stored in any fashion. How do we know? The security people in the other room could be copying the

COUNTERPOINT

images onto their personal computers and selling the images on eBay and we'd never be the wiser because we can't see them looking at us naked!

You can soon expect these scanners in airports throughout Canada including the Vancouver International Airport. But wait for it, there is one exception for who doesn't have to walk through it in Canadian airports: people under 18 years of age. Do you want to know why? There are concerns that these images could be considered child pornography. So wait, if it's considered child pornography when people under 18 are scanned, isn't it also pornography when people over 18 are scanned? So next time you fly, you get to be a porn star "for your own good"! Oh well, at least

Isn't it also pornography when people over 18 are scanned?

they're protecting the young, innocent children, who, as a by-product of being protected, will now be the next terrorists to carry bombs strapped to their nether regions through airport security.

By creating this small loophole, security is giving the terrorists an easy way through security: hire younger terrorists.

At what point will we say enough is enough? At what point will these crazy security measures deter air travel? Don't get me wrong, I tend to fly a lot and I do appreciate security, but at some point it gets excessive.

I assume after these scanners get implemented, some sort of weapon will breach them and we'll have to come up with a new type of security. Just about the only more extreme security measure than these scanners would be a real strip search. Ready for that? Naked flying: The future of air travel ... and you thought being stuck in an economy class seat beside an overweight person was bad, now you get to do it naked!

See you in the naked skies!
PS. Don't believe anything Alex says. She's incredibly bitter and shouldn't be trusted. Also, she once got attacked by pirates while reading Twilight and hasn't been the same since.

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.

POETS

MOVIE SCHEDULE

SHOWINGS BEGIN AT NOON

Wednesday January 20 Billy Madison Anchorman Zoolander	Thursday January 21 Thursday Theme Days	Friday January 22 Clone High	Monday January 25 Star Wars I Star Wars II Star Wars III	Tuesday January 26 Star Wars IV Star Wars V Star Wars VI
Wednesday January 27 THX 1138 American Graffiti Willow	Thursday January 28 Thursday Theme Days	Friday January 29 George of the Jungle Lucas Hook	Monday February 1 Bucket List Shawshank Redemption Dark Knight	Tuesday February 2 Pretty Woman Runaway Bride My Best Friend's Wedding

Sandvine Hosts Recruiting Event



ANGELO ALAIMO
2T ELECTRICAL

On Thursday January 14th, the engineers once again invaded Bomber for another Sandvine recruiting event. Many of us upper years definitely know of Sandvine, especially if you have been to one of their previously held recruiting events at Bomber. For those of you who are in first year, or are new to the University, I'll describe a little more about the company and their event.

Sandvine, headquartered here in Waterloo, is a company that develops network solutions for internet service providers. In addition to an office in Waterloo, the company has many more worldwide in such places as New York and Jerusalem. Every term, the company, like many other companies, hires co-op students from Waterloo. Although most of these companies hire out of Jobmine, Sandvine does things a little different - they host a massive recruiting event at Bomber.

It all begins with getting a hold of a ticket for the event. If you're in upper year electrical, computer, software, or system design engineering, a class rep will generally have access to tickets to give out. For those who are interested in the company but don't get tickets through this method, another way to get a hold of tickets is to reply to a friend's "I've got X tickets to Sandvine!!" status on Facebook. I was luckily on the guest list, so I had no trouble getting access, but it can be difficult!

On the night of the actual event, one must bring their resume to gain entry - this is a recruiting event nonetheless! Upon entering bomber, your IDs are checked and you are handed tickets with the lovely

word "Beer" written on the front. That's right - free beer! In the past, these events have typically been open bar, but gone are those days! Regardless, I am not complaining. In addition to drinks, appetizer platters made their way around Bomber in waves as the night progressed, offering snacks to many hungry students.

Current full-time employees, and Sandvine co-op students - past and present are available to talk about the working experience at Sandvine. I had the opportunity to speak with Co-Founder and current President/CEO of Sandvine, Dave Caputo and he had the following to say about the event, "Many of the people here are co-workers and friends, so it's a great night out with good drinks, good food, and good music. When you work with your friends, it hardly seems like work at all."

By the end of night over 300 people made their way through the event, and some of those will eventually become future employees of Sandvine, who Caputo says are "an integral part of Sandvine." Caputo mentioned the Waterloo co-op students bring valuable experience to the company, and eventually graduate as real engineers with great work experience.

I personally enjoyed my time spent at the recruiting event, and believe Sandvine is doing a perfect job getting their name out to students. I feel its very important to know about the company behind job opportunities and what better way than to mingle with their current employees.

One note for the future: Sit at the large tables if you want to get food. I found the Bomber staff did a terrible job of fairly distributing the appetizer platters. I observed smaller tables received no food at all, but larger tables receiving platters all throughout the night. I guess it also helps to personally know the one or two waiters/waitresses that were actually dealing the food out to the tables.

The Iron Archives Fed Hall: Alive and Kicking?



MICHELLE CROAL
3B CHEMICAL

Since 2010 is the 30th anniversary of *The Iron Warrior*, we'll be bringing you a new feature starting this issue that will be like opening a time capsule on the history of our publication. Looking back to landmark years, such as 2005, 2000, 1990 and 1980, we'll showcase articles, news or features from the corresponding issue of that term (on the condition that it actually exists in the archive cabinet in our office). In January 1999, Volume 23, Issue 1, Yasin Bismilla (2A Mechanical) wrote on the revival of Fed Hall.

"Over the last couple of years, events [at Fed Hall] have been restricted to Frosh Week, and a few bashes during each term. It is unfortunate because the atmosphere and size of Fed Hall is ideal for any type of party. Last term, a couple of unfortunate events, namely fights, left a black mark on the future of big events and revived the issue of what to do with the underachieving bar."

"This term, action has been taken. The pub movement is on, and so far the focus has been on changing the image from a concert hall to a spot for students to hang out on a weekly basis. It has only been two weeks, but the Thursday night affair, Boys and Girls, has been successful. People have enjoyed themselves, and there are signs that Thursday nights and Fed Hall will become synonymous. ... It remains to be seen whether the hype will last week after week."

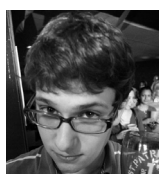
"...One important thing that should not be forgotten in all this is the big event. The pub movement is great, but Fed Hall was built for concerts and large crowds. There has been some good bands making appearances, especially during Frosh Week, and the special events have always been a success. These will continue to be the main attraction and should never die. The place is just too good to not host concerts regularly."

"...All is good in Fed Hall right now, and if all the good things continue, even the next generation of students will experience first-hand what most of us have only heard about: the Fed Hall of old."

I found this article interesting, as Fed Hall is an excellent, convenient location with a large capacity for parties. Yet to my knowledge, it is still used mostly during Frosh week, during the winter terms for graduating balls or banquets and infrequently for other society parties and semi-formals. What was the Fed Hall of old? Prior to ten years ago, was it frequently used to host concerts and events that have since seen a decline? Maybe the idea of having a concert hall on campus doesn't appeal to students anymore, and they would rather frequent the bars on King St or clubs such as Rev. It could also be that since Toronto is only 40 minutes away, students prefer to go there for the concert and music scene, instead of creating a demand for it here in Waterloo. Consider that Fed Hall's counter-part, the Bombshelter Pub, has done significantly and consistently better since its beginnings in the mid 1970s.

Look out for more flashbacks in *The Iron Archives* next issue!

BOT Kicks Off the Term



ANGELO ALAIMO
2T ELECTRICAL

On Friday, January 8th, A-soc kicked off the Winter term by putting on a fantastic rock and roll themed BOT party. The usual engineering beginning-of-term celebration invaded the unusual venue of SCH's festival room, complete with a live band. During Friday night's celebration, old friends met together for the first time after a long four month co-op term and it was also the first time 8 stream frosh got to party with the A-socers.

Live music in the form of the band Sea to Sky, named after the Vancouver-to-Whistler highway link, entertained the engineering crowd with a solid mixture of covers and original tracks, and I must say it was a great change to the usual disc-played music.

After the TOOL's arrival, safeguarded by none other than the TOOL Bear-

ers, the entire crowd of over one-hundred students was treated to the epic never-before-seen-on-A-soc 2009 frosh week video.

Afterwards, the TOOL Bearers made their exit, but not before another kind of tool tried to touch the Tool. He was, of course, promptly stopped by the TOOL-Bearers.

The eventual exit of the TOOL marked the end of BOT at SCH and many people left promptly to flood the bars and clubs of Waterloo and start their own beginning-of-term celebration, before the flood of work-term reports, homework, and interviews begins.

Good luck with everything in the first few weeks of the term. See you at MOT!



Michael Seliske

Students cheer as The TOOL makes its appearance

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The Big Wide Scary World

PETER ROE

DIRECTOR OF EXCHANGE PROGRAMS

By the time they reach the age of 18, most Canadians have never been outside Canada, except possibly on short trips for shopping or on a holiday with their parents to the United States. A majority has never left their home province, while many urban dwellers have barely been outside their home city. To these people, the rest of the world is a great big unknown, fraught with danger – full of wars, tsunamis, earthquakes, pirates, etc.

However, almost every engineering student at Waterloo is an exception to the above. Not many call Waterloo their home

town, so most have at least ventured forth to a new environment, even if it's just a car trip away. But still, for most engineering students here, coming to Waterloo was the first time they left home for any lengthy period.

So, you're out in the world, and it's not that big of a deal. It hasn't turned out to be tough. It's great to be independent. Maybe it's time to think about the big wide scary world out there, where you can't get the Toronto traffic on your radio or TV.

Is the world really that scary? If you watch the news on CTV or CBC, or even CNN or BBC World, you will have heard of all sorts of disasters and calamities around the world – floods in Australia and a major armed robbery in France for example. That's just the

nature of news reporting. The local news never tells you about the cars that didn't skid off the road or the highways where there wasn't a whiteout. Most of the world is full of ordinary, friendly people going about their business on a simple day-to-day basis. There were no floods in Queensland, where UW has exchange programs, even if a small part of New South Wales was under water. Yes, gangsters had a shoot-out with police and stole about \$6 million, near Marseilles, but the rest of France and Europe were pretty peaceful. It's like this everywhere – when there's a flood in Winnipeg or a gang confrontation in Montreal, life goes on normally in Waterloo or Toronto. So maybe the world is big and wide, but

not so scary after all.

How about getting to know how people in other continents and countries live and learn? As an engineering undergraduate student you have world-wide opportunities to live and study abroad. The Faculty has exchange arrangements with over 60 Engineering schools in about two dozen countries. Why not plan ahead and spend 3A or 3B or both on exchange and become familiar with the big, wide, and not-so-scary world out there? It will broaden your perspective and prepare you better for your post-university career. Visit the Engineering Exchange Opportunities website www.eng.uwaterloo.ca/~exchange for details. The earlier you start the process the better.

The Brew Man Group: Time for Barley Wine



DAN ARMSTRONG
3B MECHANICAL
NEIL PARTRIDGE
3B CHEMICAL

Welcome, dearest Brew Man Group readers, to another semester of great beer discussion. Dan is stoked to be back in the cultural and social haven that is Waterloo (...) but Neil is unfortunately still stuck in Japan, drowning in a sea of loneliness, Engrish, and cheap flavourless rice beer. As such, there will be at least a few more segments requiring international collaboration, and both Dan and Neil will have to spend many more nights drinking away the pains associated with long-distance BFF-ship (Beer Friends Forever). Thankfully there is a beer style that, particularly in these cold months, can bring anyone out of their sorrow, warm them up a bit, and kill any brain cells that were holding onto those sad thoughts. That's right, it's time for some barley wine.

Neil: Many of our readers may oft be at the receiving end of a three-beer funnel (no worries, we've been there too!) But for those of you who want to remember what you put down your throat last night (maybe some don't...), the Brew Man Group is here to show you the way to beer nirvana; it all starts with barley wine!

The history of barley wine is not well documented; however there are indications that this style was the result of a common trend amongst British brewers as far back as two centuries ago. The original recipes leaned toward a huge portion of pale malt, dry hopping (hops added after boiling), extra long or multiple fermentations, and aging of the beer. The finished product blessed the Brits (those cheeky bastards) with one of the most complex and alcoholic brew styles ever, with specific gravities reaching 1.1 and alcohol levels pushing 12%. However, the scale was small and it wasn't until later that the actual term "barley wine" was coined and commercialized by the company Bass in 1903. Since then, barley wines have evolved and diversified into a worldwide style. Almost every reputable ale brewer has at least one barley wine (hooray!), but there's a catch, they are brewed in limited quantity (damn!), and often modified annually (eep?). Also, due to their complexity, bottles are labelled by year to allow

for idiot-proof cellaring. Basically, this means that you might want to drink every barley wine like it's your last, because most likely it will be! (I take no responsibility if this statement is abused in any way.)

Dan: The barley wine of concern to me today is from Mill Street, a brewery that first started producing beer in Toronto's historic distillery district in 2002, and continues to operate out of the same vintage 1870s facility today. Thanks to beers such as their flagship Tankhouse Ale and accessible (yet hippy-friendly) Organic Lager, Mill Street has become quite popular over the past few years. Tankhouse, one of my favourite go-to beers, is even being served at The Bombshelter now, perhaps a sign that the world is indeed ready for some flavourful beer. Other stellar selections from Mill Street include the Coffee Porter and Belgian Wit, both of which, along with today's featured Barley Wine, are available at the LCBO. There are several brews however (including their ESB, tripel, and IPA) that can only be purchased at the brewery itself or at their on-site brewpub. Perhaps Neil and I can celebrate his homecoming with a few too many pints there later this term.

The only other Canadian barley wine you might find at the LCBO is St-Ambroise Vintage Ale from Montreal, which is the one that got me into the style. Also available is the classic Fuller's Vintage Ale from the UK,

though it is sometimes classified as an 'Old Ale' due its somewhat lower strength (8.5% ABV instead of 10% or 11%). I just like to think of it as being Neil-sized. Other Canadian options are Half Pints' Burly Wine from Winnipeg and Dieu du Ciel's Solstice d'Hiver from Montreal. Keep an eye out for these when working out-of-province.

Neil's thoughts: Hey Dan, did you know that ABV really stands for "Arrogant Bastard Value"? I think that 8.5% is more than enough for most, but you can keep drinking the 12%'s all you want. Just thought I would throw it out there... Well readers, this has never happened before in Brew Man Group, but it seems that I'm at a loss for finding barley wine in Japan (and Dan didn't send me a Christmas present). Although there are many microbreweries scattered around the different prefectures, there seems to be almost no distributors or special stores like the LCBO to stock rare items. That leaves only one option, search the web in full kanji (yeah right!) and have it mailed via Japan Post. In the end, I did find a bottle of barley wine from my favorite brand "Yoho Brewing Company" for a mere \$40, which is just under a third of the price of the most expensive beer in the world (see Samuel Adams Utopias). Naturally, I bought two bottles, but shipping didn't co-operate in time for the article deadline. I will surely bear shame for 1000 years, but at least Dan has something much

more delicious and accessible to review. [4 angry readers/5]

Dan's thoughts: Normally I'd tell off Neil right here, but I just can't. In his land of the bland, the guy dropped serious cash seeking out some rad-ass beer, a respectable act that reminds us all to savour what we can get our hands on. For me, that would be Mill Street Barley Wine, 2009. \$12 for a single pint of beer, and not for a Heineken at Neil's favourite euro-beat douche-fest (sorry Neil, the respect didn't last long). It pours out of the fancy ceramic bottle into a goblet to reveal a light hazy orange brew with a medium creamy head. No real lace to speak of, but at 11% ABV that's sort-of to be expected. Smells of candied fruits, orange, and spicy alcohol. The first sip shows off the thick, chewy mouthfeel, which is quickly followed by spicy/floral hops, sweet fruity citrus, and caramel malts. Finally there's a nice dry finish with a small, but noticeable alcoholic burn. Nice stuff. This beer was brewed all the way back in April 2009 and was left to mature for several months before being bottled and released for the winter. I'm sure this will age very well, but it's already come together in a really good way (and for the price tag, I should certainly hope so). [4/5]

All examples mentioned above are recommended for consumption. Seriously, go buy some barley wine.

Props to hops // Dan and Neil

P5**

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Goin' Prorogue

Harper Brings Politics to a Complete Standstill



JON RADICE
3B CHEMICAL

The hot-button issue coming out of parliament in Ottawa is, well, that there is nothing to come out of Ottawa for a long time. Prime Minister Stephen Harper has called an extended winter vacation for federal politicians. Their tentative date sets federal politicians to return to Ottawa right after they're done watching the gold medal hockey game - the end of February.

Now this is not an uncommon thing, for Harper or any other Prime Minister. In our relatively youthful nation, we've had 105 prorogations of parliament. Quick-witted mathies will tell you that's about once every year, and many Tory supporters claim that Canadians should be used to the notion of proroguing parliament. Liberal iron-man Prime Minister Jean Chrétien halted parliament 4 times in his ten-year term. However, this time it's raising the hackles of people on all sides of the political spectrum, for various reasons.

Harper is no stranger to closing down the federal government. Non-goldfish can remember last year when Harper was faced with strong notions of a coalition forming from the other 3 parties, he shut down parliament in order for the talks to simmer down. With it, he left over 30 open bills without resolution that will have to be completely restarted in the new session. One of the bills included a motion to look into Canada's handling of Afghan detainees, after there were alleged torture claims from many people being held in Canada's care. BC-interior Conservative member Stevin Hill told many news outlets that "many Canadians do not

care about allegations of torture," an odd statement seeing how prior to prorogation there were articles running nearly every day in almost all major newspapers. A Harris-Decima Poll has around 70% of all people surveyed stating that they believe it would be wrong of Canada if they knowingly gave detainees away to be tortured, implying that many Canadians are very concerned with the government's involvement in Afghanistan. However, with the news groups printing new articles revolving Harper's Afghan dodge, it seems that Canada will not let this one blow over. A

Canadians are very concerned with the government's involvement in Afghanistan

small victory for one of the bills on the table however; in one of my previous articles, I mentioned how Harper was putting bill C-15 on the table. This bill was put up as a 'tough on crime' bill, and included mandatory jail time for possession of small amounts of drugs, including marijuana. This bill, which was almost on the edges of being passed, will have to "go back to GO, without collecting \$200". Hopefully the bill could get shut down this time around.

Always the greatest gauge of knowledge, the Facebook group *Canadians against Proroguing Parliament* has member numbers nearing 200,000 people. While Facebook might not be a strong driving force for change, it does show that there is a sizeable chunk of young adults, often the most underrepresented political demographic, showing an interest in Canadian politics. This is a good indication that more and more nonvoters are taking an interest in politics, and as a result there may be a little more variability if there would be an election called in the near future. Rumour mills are claiming that we may see an election in the springtime, if Harper hasn't quelled a lot of the vocal dissent.

The Fashion Files



AMANDA LEDUC
3A MANAGEMENT

I predict an incredibly fashionable season this winter. With tall boots, hats, coloured tights, leather, chunky knits, ripped/torn jeans and military inspired pieces, what's not to love?

I think engineering gets a bad reputation for being unfashionable. Yes, we have long class hours and may not have time to put as much time into planning our looks as other faculties, but we are capable of following trends and even inspiring our own trends.

Anna rocks the style of tall boots with this look. This trend is both practical and fashionable, a rare combination. I must admit that I love the look of tall boots over jeans. It makes the leg appear longer and keeps the bottom of the pants dry. You simply can't go wrong with this combination.

Eric takes the look of ripped jeans to the extreme. While some would say these

jeans are ripped to the point of being inappropriate to wear in public, Eric is just trying to be like all the other fashionable folk out there and push the envelope that much further. Who knows, perhaps we'll all be taking scissors to the backs of our jeans soon!

This look from Mike is so unique and is perfectly accessorized by the farmer hat. Who's to say we shouldn't take fashion back to the grass roots from whence it came? Mike pays tribute to the farmer with this country inspired look. He even cut the straw he is chewing from the ground in his front yard. That is total dedication to an authentic



Amanda Leduc authentic

look.

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

Stay Classy,
Amanda
CFO (Chief Fashion Officer)

Ideas Worth Spreading



ANJALI GOPAL
1B NANOTECHNOLOGY

Pranav Mistry has developed the Sixth Sense—and no, he doesn't spontaneously see dead people. Instead, he's working with technology to seamlessly integrate it into our lives—essentially called "Sixth Sense Technology".

The SixthSense Device makes use of a small pocket projector, a mirror, a camera and colour markers. The first three items are worn like a necklace, while the colour markers are placed on the fingers to track hand movements. The result? An interactive interface that not only absorbs information from the outside world—it also brings the information back to you. As Mistry puts it, "you can start carrying the digital world around with you". Any surface—a wall, a desk, even your hand—can be used to interact with that digital world.

It doesn't stop there. The SixthSense Device can be taken outside, and it is so intuitive to a person's motions that even making the gesture of taking a picture will prompt the camera to take an actual picture. The camera also recognizes other objects—for instance, the act of picking up a book will prompt the camera to find recent reviews about that book, or other sorts of information. Adding a small microphone and 'clipping' it onto a paper can enable the camera to treat any surface—such as a piece of paper—as a TV screen, where you can watch movies or even play games. The potential of SixthSense technology is enormous.

Math Symbols Are Not Works of Art

FARZI YUSUFALI
1B NANOTECHNOLOGY

Everyone knows that the Faculty of Engineering at the University of Waterloo does not care for art (and rightly so!). The mere mention of "arts" in a sentence sends many students into a screaming and arm-flailing frenzy. I, however, bravely venture into this dangerous territory to gather information for my *Iron Warrior* assignment.

The Science Daily recently published two articles regarding research conducted by two European universities (Netherlands' Tilburg University and Germany's Max Planck Institute) related to the use of computer algorithms to analyze pieces of art. Finally! Someone, probably not a UW engineer, cares about art! While the Tilburg University geared their algorithm to a more practical application, the German University claimed that their new algorithm could understand and rate compositions from any artistic period. I don't know about you, but somehow the idea of an algorithm "understanding" art did not sit right with me.

Determined to gather more information, I decided to conduct some research of my own to learn about the basic premises for both of

these research ventures. The purpose for the Tilburg University algorithm was to assist the art historians in distinguishing between authentic works of art and fake imitations by comparing the physical attributes of the subject matter to other works created by the same artist. However, the German University strove to quantify the aesthetics and categorize an assortment of artworks.

All I can ask now is: "What's the point?" Is it really necessary to introduce innovation into a field that is already established? Maybe, such questions should be asked before embarking on such tedious (and sometimes expensive) initiatives. Furthermore, promoting progress for progress' sake is not only incredibly misguided, but also hinders the advancement of other beneficial endeavours.

It is safe to say that the universal belief of creating a shared academic entity has been challenged over the last few days. Forgive me for using this cliché term but the ideas discussed above represent the classic "trying to fix something that isn't broken" scenario. I strongly suggest that these researchers and computer programmers should stick to what they know and stop pretending to be informed about art.

Still not interested? Check out these new engineering ideas that have also been presented on Ted.com!

- Saul Griffith on Kites: Thought that no form of renewable energy could sustain the human population? Griffith talks about the extraordinary wind power behind kites, and how a kite the size of a Boeing 747 could generate more power than the largest wind turbines today.

- Rachel Armstrong on Self-Repairing Architecture: The days of stone structures are over. Armstrong talks about working with architecture and making materials that can grow and repair themselves - talk about a construction project!

- Aimee Mullins on Legs: Who says engineers can't be involved in fashion? Aimee Mullins, an amputee who has had both legs removed, talks about her eleven pairs of legs—and how she has overcome her disability.

Don't let ideas for design projects ever stump you again! For more inspirational, inventive and interesting speeches, make sure to visit Ted.com!

IW RECOMMENDS

Website
Tumblr
www.tumblr.com

SARAH AHMED
3A ELECTRICAL

Tumblr is a micro-blogging site that has made blogging easy with the use of four buttons: comment, reblog, follow, and like. It thrives as it steps away from the structure of a traditional blog, letting you customize everything. For blogger newbies, there

are 305 ready-to-use templates (there are more, in test stages) and for hardcore bloggers, there is an option to create and publish themes. Tumblr allows you to upload links, photos, quotes, music, videos and text from your phone (applications are available for both iPhone and Facebook), your email, AIM, Twitter and your own computer. While Tumblr has been accused of stealing ideas from others (Like from Facebook, Follow from Twitter, and TumbleUpon from StumbleUpon.com), there is no question that with 2 million users, it is doing something right.

Review Based on the Trailer: The Tooth Fairy



JON RADICE
3B CHEMICAL

When it comes to movies, January never ceases to disappoint. Known as the barren wasteland of the movie calendar, January is packed with the movies that were even too bad to make the Christmas elementary-school break rush. Far from the radar of any Oscar nomination, these movies are bland and uninspiring, and usually far erased from everyone's memory in time for the crop of Valentine's Day's rom-com's. And outside of a terrible looking Denzel Washington movie (*The Book of Eli*), an even worse-looking Dennis Quaid movie (*Legion*), and a laughably terrible-looking Jackie Chan movie (*The Spy Next Door*), it might be a great idea to hold on to those

Cineplex gift cards you got at Christmas until February.

But wait, hold the phone Mabel! Dwayne 'The Rock' Johnson has returned to put the Rock Bottom on this boring movie month. Following up on his last big hit, involving him playing a ruthless football player granted with the task of taking care of his young daughter, Dwayne shows his versatility by playing a ruthless hockey player granted with the task of becoming a tooth fairy after telling his young daughter that Tooth Fairies don't exist. Wrangled into this early Golden Globe Nominee were Julie Andrews and Billy Crystal, no doubt owing the producers either a big favour or a large sum of money.

One upside to this is, as an avid hockey fan, I do adore watching American movies where they butcher my beloved game. My guess is that if you go to this, you'll see the Jason-style goalie mask, game-stopping

body checks that will lead to an instant goal, maybe even a puck hit so hard, it'll knock out a ref. It would actually be funny to see Dwayne play hockey, because I'm sure like every good Californian athlete, he never stepped foot on ice before in his life. But other than if you're dating a 12-year old (and shame on you if you are), I can't think of a reason why you'd even go to this movie.

The Rock's fall into the Cuba Gooding Jr. realm of really bad children's movies is a very sad one for me personally. Around the new millennium, the Rock was one of the best things that happened to the (then) WWF. Electrifying, charismatic, and hilariously boisterous, The Rock was a force whenever he was put into the ring. Not the best wrestler, he made simple movies absolutely explosive (anyone who played any of the WWF wrestling games knows that the People's Elbow was one of the deadliest

moves in the game, although being nothing more than a standing elbow drop). He was always hammy, but I don't think he got a fair chance in real movies. He was quickly relegated to b-movies and kiddie-slapstick. But one thing you can get from the trailer is that he seems to be enjoying himself terribly. And hey, he's one of the few wrestlers-gone-movie stars that can actually string a sentence together- the last one that could do that became governor. Dwayne Johnson to replace California Senator Arnie? You heard it here first.

It's a silly-looking kids movie, for silly looking kids. We as a whole can probably avoid it, and none of us will be poorer for it. If you need a fix of The Rock, wait until the summer, where he's in a movie with the likes of Will Ferrel, Sameul L. Jackson and Marky Mark Wahlberg. The Tooth Fairy drills its way into your skull on January 22.

Book Review: The Digital Fortress

FARZI YUSUFALI
1B NANOTECHNOLOGY

Title: *The Digital Fortress*

Author: Dan Brown

Year: 1998

Have you seen a sentence anywhere that uses the words "algorithm" and "guns" at the same time? I'm pretty sure you haven't, even if you are a science geek. I, however, stumbled upon a book that uses these words in combination many times over. *The Digital Fortress* by Dan Brown is a sci-fi thriller that attempts to please both

the sci-fi devotees and the average thrill seeker in one fantastic novel.

The story revolves around a young mathematician, Susan Fletcher, who has been called by the NSA to crack an algorithm that has rendered the agency's main code-breaker machine useless. With the added mystery surrounding the algorithm creator's sudden death, the plot, in essence, is a race against time to prevent a national emergency that threatens the safety of the United States.

While this is one of Brown's less popular books, it does not disappoint in provid-

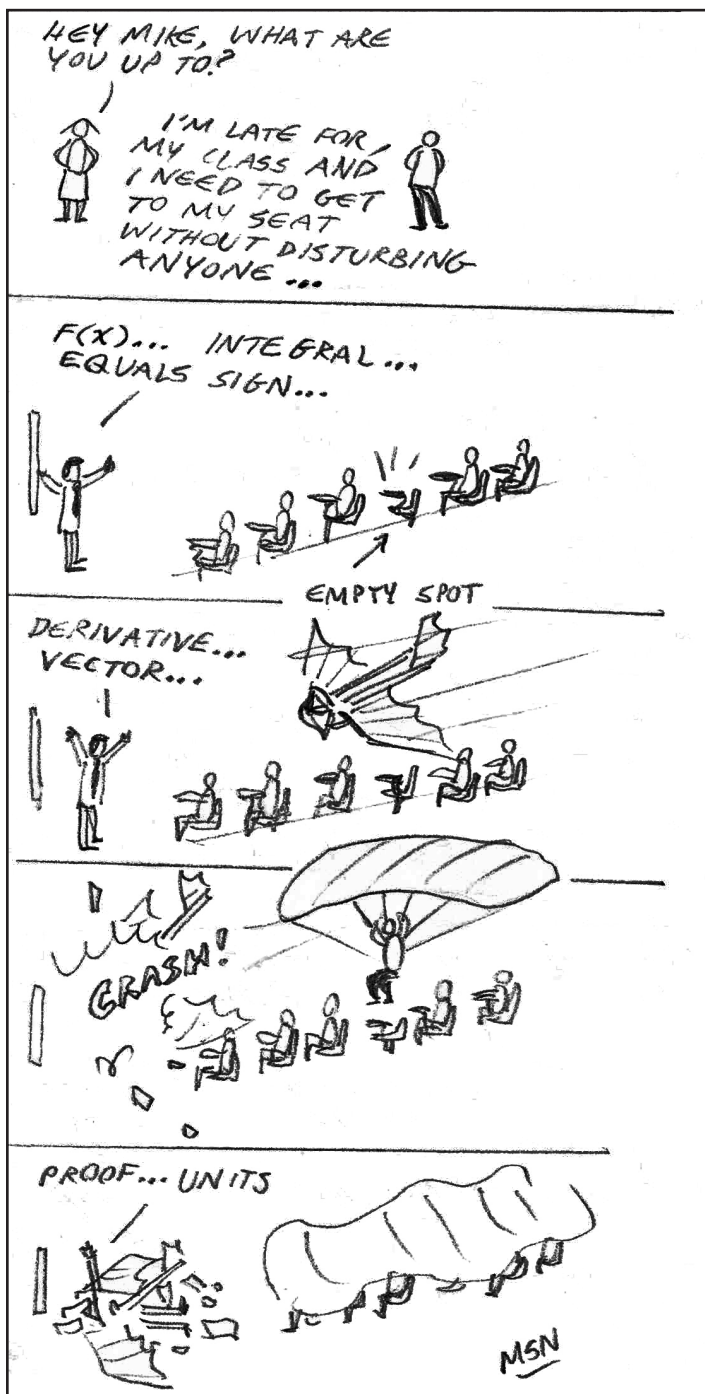
ing the reader with the rare "need-to-finish-the-novel-in-one-sitting" thrill. With the exception of the opening chapters, the story is fast paced and full of twists and turns. Uncommon to Dan Brown's other books; the protagonist is a strong woman who excels in this male-dominated profession. The other characters support the protagonist well and are clearly defined within the fabric of the narrative. The storyline itself is unpredictable and the events that occur at the same time are given equal attention. The accuracy of the technology used within the plot is also well-researched

and provides the reader with enough background knowledge to follow the sequence of events with ease. The many surprises in the story prove to be unpredictable and succeed in maintaining the readers' interest with no difficulty (the fair bit of action does not disappoint either!)

In a nutshell, Dan Brown's publication proves to be an enjoyable read and is comparable to the immensely popular Robert Langdon series. I highly recommend this book, especially to engineers, since it effortlessly combines the "geekiness" of computers with Bond-worthy action.

The Resourceful Engineer

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The Odyssey Continues...



CHAD SEXINGTON
4Q MANGINEERING

Good afternoon my Gorgeous readers!
Welcome back to another instalment of the sexiest column on newsprint! Hope all of your work terms were super sexy and you had a great chance to build new skills and meet new people. It's been an interesting couple of months here at UW in your absence, and to start off I've taken a bit of leave to explore the wider world. I'm writing to you now from a mystery location as I don't even know exactly where I am, but more on that later.

2009 is over and overall I think it was a pretty good year. Sure school might've been a bit harder than the year before and some bad stuff might have happened to us,

but just think of all the good things that have happened in the past twelve months and you might begin to see that 2010 is going to be even better. The most attractive parts of 2009 for you might have included getting a job, getting closer to graduation (383 Days Until IRS!), Halloween, the closing of one door and the opening of two more, road trips, crossing the finish line, friends from afar coming to town, new music, new movies, new houses and new adventures, finding out that you can stand for things, stand on things, stand in front of things and stand behind things, wrestling bears and changing yourself for the better. Yes sexy readers, in the words of a very good friend, "2009 might've sucked, but 2010 is going to be freakin' awesome". If last year wasn't your year, then make this one do your bidding. Take that year and shape it into the best year of your life. I'm not saying it's going to be easy, but as the saying goes "the only easy day was yesterday"

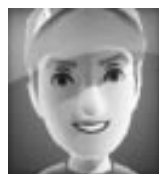
so get ready for some sexy times!

As I wonder about the engaging new times that 2010 will bring, I am surrounded by woodland creatures all tucked away for winter in their burrows and it is quiet. Do not fear beautiful readers, I am not lost, I merely don't know exactly where I am. I know now that I am hundreds of kilometres from the nearest town, far out in the middle of a frozen lake covered in waist deep snow with only my winter parka and my snowshoes to carry me forward. Snow falls softly down as the winter weather makes its presence known, and there is not a person in sight, only the rustle of the trees and the crunch of snow as I walk. Few people experience the strange quality of this place. It is indescribable and strangely comfortable this far out in the wilderness. It's like being in a warm bed while actually being in the frigid winter cold. You might want to try it sometime, it makes you feel alive like almost nothing can. But why am I here

you might wonder? Well dear readers, last term the itch of travel came upon me and I embarked upon a mighty quest to have a sexy adventure. Equipped with quips and 3/4 of a MANGineering degree, I left UW and headed out to find the craziest adventures possible. While in the last town I had come across, as I laid down the law on sexy parties, I heard of a wise man of the woodlands. The mightiest jacker-of-lumber that has ever existed. Great is his beard, long is his reach and sharp is his enormous axe so the story goes, and I have set out to find him. "Where does he live?" I enquired of a passing woodsmith. "To the north" he replied, "go out and follow the trail of woodchips to him" and so I have. For when I find him dear readers, I will learn from this woodsman all that there is to learn about the mastery of the forest and impart this knowledge unto you, wish me luck.

Until next time,
Stay Sexy.

Another Year, Another Year of Gaming



JON MARTIN
OBI JON1138

As an Xbox 360 owner and the sibling of a Wii owner, any perceived bias towards or against specific consoles is due to my lack of disposable income. If I could I would also buy a PS3, but as a student, that is not possible. Please forgive any disproportionate coverage; I do my best to cover issues that affect all consoles, without focusing on or neglecting individual systems.

Hello everyone and welcome to 2010, very belated I know but this is the first issue of the term so it is appropriate. I hope everyone's holidays went well, seeing family and friends, enjoying the break from lectures, assignments, lectures, tutorials, lectures, exams, and of course lectures. I also hope everyone got some gaming time in between the holiday cheer.

As we enter a new decade we see a change in the outlook of the big three gaming systems, perhaps in recognition of the global change in economics. While just a few months ago both Microsoft and Sony were hinting at the 'next' next generation consoles, with the current console life cycles ending around 2012; they have both changed their tune. Both Microsoft and

Sony have reaffirmed their commitment to their current consoles, expecting the current gaming generation to last for about another five years. Each have announced a new motion control system, which will no doubt attract new casual and traditional gamers as new genres are created to take advantage of the technology. Microsoft's Project Natal, which will hopefully get a new name before it launches, has been dated for release in November 2010, with thirty Natal games ready at launch. It remains to be seen whether those thirty games are Natal exclusives, developed especially for the new technology (like Lionhead's "Milo") or traditional games featuring Natal support in addition to regular controllers.

Beyond the initial news release, and press conference to show off the technology, Sony's motion controllers have remained a bit of a mystery. Very little has been revealed concerning a release date, price and initial games support. If you are wondering why I haven't mentioned Nintendo much so far, it is because they haven't really announced anything. They are content to let Microsoft and Sony battle for the core gamer demographic, while raking in cash from everyone else on the entire planet.

This week saw the Consumer Electronics

Show (CES) take over Las Vegas, showcasing the newest technology on the planet. Sony's booth focused mainly on their new proprietary 3DTV system, something they are planning to bring to gaming as well. 3DTV seems to be the popular topic this year, with every manufacturer coming out with their own system, and that's where the problem comes from. At this early stage of the technology a standard has yet to be

[Nintendo] are content to let Microsoft and Sony battle ... while raking in cash from everyone else ...

set and each company wants their system to be the one to succeed, which will invariably stop people from going out and getting a 3DTV the moment they hit the shelves. Nobody wants to be left with a system that no one makes movies for anymore – it will be HD DVD versus Blu Ray all over again, only this time with about four competitors. Sony also showcased the launch of their Network system across all their products - you will now be able to have one online profile for all your Sony products.

Microsoft's booth was focused more on the launch of Windows 7 (which we can get for free through the University - Check out the CHIP office in MC 1052) as well as the new Xbox 360 only games coming out this year. One of Microsoft's big gaming announcements was Game Room, a personal-

ized arcade where you can control your avatar and play retro arcade games with friends. Games will be available to purchase for play on Xbox 360, a dual license for Xbox 360 and PC, or as a pay to play system - back to the quarter per play system of the arcade.

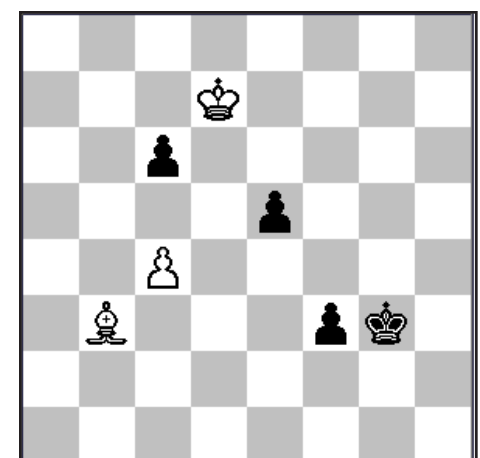
Once again I seem to be ignoring Nintendo – let me assure you that this is not on purpose, they just didn't have anything noteworthy at their booth at CES. They are easily outselling both of their competitors, they already have the motion technology that Microsoft and Sony are trying to mimic, and all they need to do is keep bringing out good games to attract new gamers. Maybe they should also look into creating a Wii HD or something else that could actually compete with the other two systems on a power and graphics comparison.

As a quick side note, EA has announced that they will be keeping Tiger Woods as the figure head of the Tiger Woods PGA Tour games. Amid the storm of corporate sponsors abandoning Woods following his car accident and subsequent infidelity scandals, EA is standing by the golfer. They say it is because they don't care what he has done, he is still one of the greatest golfers of all time. I think it might have a little bit to do with the fact that one of their biggest games series, on which they rely on to support their games division, is based entirely around Tiger Woods. That would be like DC comics abandoning Batman or Superman – it just isn't going to happen.

So, enjoy the term, don't let lectures get you down (I don't really hate them as much as it might sound), and if you, like myself, are on co-op – don't let PDEng destroy your will to live. Keep on Gaming.

Chess

MOE ADHAM
4B MECHATRON



Problem: White to move and DRAW



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The Iron Crossword

MICHELLE CROAL
3B CHEMICAL

1	2	3		4	5	6	7	8		9	10	11	12	13	
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67			68				69				70		71		
72							73						74		
75							76							77	

Across

- To jump on one leg
- A Mennonite subgroup
- A sound of anger or aggression
- Intercardinal compass direction (abbr)
- Voice between the violin and cello
- Spooky, a little bit strange
- Canadian whiskey
- To praise highly
- To be overwhelmed with awe
- A wheel needs this to move
- Something forbidden (pl)
- Mad Men make these
- An antelope from the Serengeti
- An obsession for many UW students
- Rabbit fur for soft garments
- Inherent or essential character
- "Much ___ about nothing"
- An ancient object treated with veneration

- Get lost!
- Spring flower, common for Easter
- Small shoot or twig
- An ongoing epic drama
- Concrete supports, typically "I"
- ___ Le Châtelier, French chemist
- Vector differential operator
- 7-up's logo
- Male and female
- Alabama, previously (abbr)
- One of these
- ___ is to USA as NHL is to Canada
- Pre-Industrial mode of transport
- The nymph who loved Narcissus
- Cover-up story
- Sunburn remedy (pl)
- Sweet potato
- Song of praise, triumph
- Iconic cowboy item
- Boxer Muhammad
- Playground equipment, past tense
- Metal strips, such as on a guitar
- Fishing tool

The Iron Math-do-ku

ALISON LEE
1B NANOTECHNOLOGY

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Down

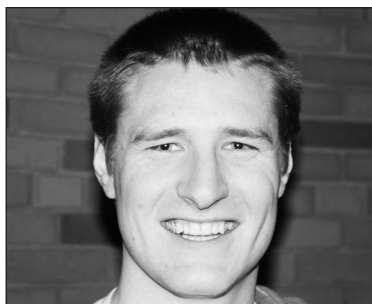
- Wife of Zeus
- A quartz type, typically black
- Take this off before you eat it
- Street with trees (abbr)
- Concoctions
- A very small amount
- A messily dressed individual
- Distinctive of angels
- Four a year
- Latest and greatest
- Opera solo
- Outer layer of cheese and watermelons
- End in feet
- There's usually a dozen in your fridge
- Possess
- Neither this one, ___ that one
- Western Athletic Conferences (abbr)
- "Goodbye", in Paris
- Christopher __, Dark Knight director
- The first letter, in Greek

- The best part about cupcakes
- Swap, hopefully for something better
- Frosh before they get cynical
- Loose gown worn at mass
- Wrath, anger
- Bad, wrong, evil (prefix)
- Iconic Village People song
- Best
- Singing alone
- Hotel
- Los Angeles International Airport
- Colored substance, generally stains
- 20 minutes of this to power up
- Imperfection or defect
- Instead of; "in ___"
- Between the knee and ankle
- Winged, Latin
- Perfumed romantic flower
- Magenta, yellow, black and ___
- Healthy, no diseases
- Forget to include
- To prohibit, forbid
- Morse's distress

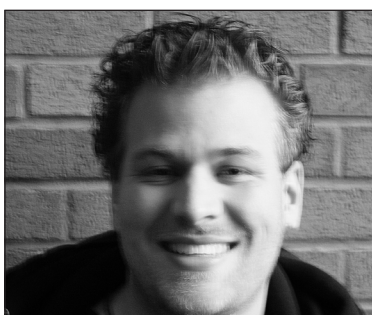
THE IRON INQUISITION

"What is your best strategy to wake up for an 8:30 AM class?"

Farzi Yusufali, 1B Nanotechnology



Jon Eubank
4B Nanotech
"Engineers don't sleep, they wait."



Oliver Rosenthal
Mechanical
- Exchange Student
"Don't go to bed after drinking the night before."



Ammar Ahmed
4B Electrical
"My mom wakes me up."



Michael Dereje
2A Electrical
"Trick someone into sleeping with you so that they can wake you up."



Jae Park
1B Nanotech
"Have a good breakfast ready to be eaten in the morning."