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MoT and Semi-Formal Pictures - P.10 and 11



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Playing and Acting in Our Spare Time



Janna Hickson

4B Systems

On top of classes, these students were learning long soliloquies and doing blocking.

How do engineering students manage to find the time to be in a play?

One way that the group this term found time to participate in this term's play, Moonchildren, is through 10pm practices. Alex Matan (4B Electrical), who plays a Market Researcher, added, "There was once a practice at 11am on a Sunday - that was the worst."

Time isn't the only obstacle that the group had to face. They also had to be very mindful of the faculty of Environmental Studies who generously let the engineering students use the "Green Room" for the play. The students were required to completely put up and tear down the heavy set after each of their dress rehearsals. This made for some long nights. The stage manager, Sandra L  commented.. "yeah, we have to tear down everything, but you can't beat the price."

Why do they do it? Vasu Daggupati, (3B

Systems) joked "The chicks dig it." What was clear from watching the group, however, was that they truly loved what they were doing.

The play was not only a display of enormous dedication, but also skills. James Rowe (Enviro-Chem), stood out in his portrayal of Bob, an emotionally withdrawn student. His delivery was both natural and convincing. Lisa Rehak (3B Systems) did a good job at balancing the ditzyness of her character with a human aspect. She kept her character, which could have got annoying pretty quickly, entertaining.

The math student Norman first appeared to be an extremely one-dimensional clich . It was almost painful to see an engineering student portray such a negative depiction of technical students. However, this character developed a lot in the second act and was well-performed.

The characters overall were easy to relate to. Although the play is centered on a group of graduating students living together in an apartment in the 60's, they face issues which are not that dissimilar to concerns of students today: impending war, relationships, parental expectations and marks.

Overall, this play is recommended. The \$5 is a fair price for the entertainment value.

Engineering Society Re-Election

The University of Waterloo's Engineering Society, seeing the nominations and the vacancy in the VP Internal slot, decided to reopen the nomination period. These are the candidates for the six positions available:

President: Josh Levitz
 VP External: Jeff Alfonsi
 VP Internal: Amy Gill, Karim Lallani, Paul Paquet, Matt Strickland
 VP Education: Jenn Bell, Emma Saask

VP Finance: Dave Johnson, Grant Holohan
 WEEF Director: Erin Young

Blurbs describing each candidate are on page 5-6.

There will be an election forum, where all the candidates will give their speeches and answer questions on Tuesday, March 18th and the election will be held on Wednesday, March 19th.

Please come out and vote!



Various Play Pictures:(All horizontal pictures from top to bottom, then the vertical picture)

- 1) Sandwiches for Protest
- 2) A guy reading a book, a girl blowing bubbles, and a musician.
- 3) Dick (Richard) speaks to Norman.
- 4) Merry Christmas to Ruth, from Mike and Cootie (Melvin)
- 5) Standoff between Dick and Bob.



Letter from the Editor

Jonathan Ng

4B Computer

Editor-in-Chief



Hi! With this installment of my editorial I'll have been the most sleepless cumulative in my entire 5-year career here in the University of Waterloo. But this paper will still keep chugging on, sleep or no sleep.

1) Parking

As I just realized, all the new buildings that have come up for (mostly) the Engineers' benefit has a huge cost: space. It's literally impossible to have a event that involves cars at the Davis Centre, because there is simply no way to park there. And as there was an emergency in the Explorations barbecue, I had to take precious time to get my car and get the buns back. Luckily, nothing serious happened while I was gone.

My point is that space is at an extremely high premium in the Engineering buildings now, because we're building over that space again, and again. This is going to work in the short term, but what if we expand further?

2) Looming End

The end is close. So close I can taste it, see it, smell it. I'll be done my Engineering degree in a little more than a month from now. Having the end right in front of you is a lot different than having it even one term away. You start to dig up old memories, balance that against what you wanted to do, and see if it matches up. And it could. I found that when I com-

pared what I wanted to do to what I did do, I was pretty satisfied with myself. I could say I did something worthwhile while I was here, and that to me is enough.

3) Current Events

Explorations was great (other than the emergency with the barbecue). Campus Day was fun too. Gradball I'd imagine would be great, but I seem to be the last person on earth to get a table. There *are* going to be elections now, and lots of people got pied. There's a lot of stuff for people to do, and it's stuff that's not always targeted to the same people. That's a good thing.

3) Spirit

Why is spirit important? I mean, it's just people doing seemingly meaningless stuff, right?

Well, it represents how well people work together. It's very important for most engineers to work together, because that's what they have to do a lot of the time - most projects are scaled so that it takes more than one person to do - even the Hardware and Software projects.

I wonder what happened to Electrical and Computer Engineering spirit? Do we have it? Was it there in the first place? Why?

The reason I asked was that E&CE was having trouble filling out Explorations and Campus Day booths.

These are very important issues, as they affect the very integrity of the program and the students who are

in it.

4) Sign off

Well, then, I'll have to sign off for another speed-editorial. I'll promise to make the next one longer. I hope you do well on exams and projects.

Questions? Comments?

We welcome letters and feedback from all our readers. Please email us at:

iwarrior@engmail.uwaterloo.ca

the IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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The Problems with IRS and IRC... What Does it Mean?

Kareem Shehata
4B Electrical

Based on what has happened over the last few weeks, it is safe to say IRC has lost its once "untouchable" status. There are a number of people who no longer feel the Obligation applies to them, though they seem to take part in it all the same. It's become a ritual that everyone undergoes to be part of the group, but few actually care about what it means.

Personally, the ceremony meant a lot to me, but only because I made it that way. I don't believe in God, but I believe that I have the power to make a difference and it's up to me to use that power wisely. Naive as that may

sound, I believe that the decisions I make have an impact, that the designs I produce will make someone else's life either better or worse, and I personally want to make sure only the former happens.

Having been told what the Iron Ring is about some time ago, I was really looking to forward my Obligation. I strongly agreed with its message, though I didn't read the actual text until ring fitting. At that point, I knew I was going to have some issues with some of the finer points of the ceremony itself.

Obviously, I was going to have to do something about the references to God since that's simply something I don't believe in. The second was that the whole thing seemed to revolve around mechanics. Much fun as iron is, dedicating myself under such a thing when I'll spend most of the rest of my life dealing with electrons doesn't make a whole lot of sense.

At that point I could have complained about the whole process. They did a good job of removing any sexist references and still kept things real, why can't they do the same with God? Maybe it's just the atheist in me, but I personally believe that the Obligation would be stronger if it didn't rely on a higher power.

I also could have complained about how much the MC stumbled over

half of the ceremony as he read from the binder in front of him. I managed to memorize the obligation in the half hour we had before the ceremony started, why couldn't he have done a better job?

For all of my complaining, the ceremony this year wasn't about to change. I think it should change in the future - has to change if it's going to stay relevant - but I had to decide whether or not to accept it as it is now. So, when they got around to the parts that involved things I don't believe in, I changed the words in my head and the words that I said into things that I consid-

er relevant. This way I still get to take part in the message, and the parts I didn't appreciate didn't hinder me.

What I don't understand is why did some people take part in the ceremony if they didn't agree with the message? It's not like they didn't know, they had to sign the card at ring fittings to get through. Did they read it, or were just following the herd as they passed through the room? If the last part is true, then what does that say about the graduating class?

In the five or more years leading up to graduation, all we hear about is the stag. How many days to IRS? It's one big party to celebrate the payoff for all of that hard work, to take pride in what we've accomplished, and take a moment to tear down

some of the carefully constructed social walls. Campus can often be an inveterate and stodgy place, and it's in desperate need of the occasional shaking up to prevent everyone from taking things too seriously. IRS does just that: it gives us an excuse to do the things we'd normally be far too repressed to even admit wanting to do, and get away with it.

The ECE department got things completely backwards when they Prof. Freeman sent out his missive about how he was "disappointed" at our behaviour during IRS. Judging by that text the point of the event was completely misunderstood, and

their approach will backfire. IRS is one of the few chances for us to let loose, if you put limits on that, what do they think the reactions will be? Based on what I've seen from upcoming classes, I doubt they'll have courtesy to use chalk.

But there can be no light without darkness. Without the responsibilities that come with the Iron Ring, the Iron Ring Stag just becomes another meaningless party. There are a number of people who would

probably take that as a good thing, but they'd also find a good thing in any excuse to party - simply having survived five years of school is probably good enough. Personally, I've worked long and hard to earn the respect of the people I've worked with, both on and off campus. That's a trend I intend on follow-

ing for as long as I possibly can, and I think that's a much more important reason to celebrate.

"Personally, the ceremony meant a lot to me, but only because I made it that way."

"Without the responsibilities that come with Iron Ring, the Iron Ring Stag just becomes another meaningless party."

Who is a Threat to World Peace?

Sung Hon Wu

3A Computer



Iraq, that one word has dominated the news for the last week, the last month, even the last year. It has led to an endless of articles and columns that have explored every conceivable viewpoint on the story. So numerous are the articles that this columnist, an avid reader of news, filters out any Iraq story because they do not anything new to say. To my surprise last week, I found an interesting article, Will Canada Support War, or Not? One part of the article made quite an impression to my mind. The article stated an Ipsos-Reid poll found 36 percent of respondents thought the US were the greatest threat to world peace, more those who said Iraq, North Korea, and Al Qaida.

For me, it raised the question, what is a threat to world peace? What is world peace? My idea of world peace has always been a utopian state, where everyone loves each other and sings the Barney song. But it is not as simple as that. Peace is the

absence of conflict and war. And in that sense, the Americans are the biggest threat to world peace. Last year the Americans fought a war in Afghanistan, and they are poised to start a war in (that word again) Iraq. In fact, if studying the past decade, Americans have been involved in a lot of conflicts, from wars in Kosovo, Bosnia, and the original gulf war. If there is a conflict, depend on Americans to be in the thick of it.

But peace is not a utopian state. It is certainly preferable to war, but it is not something to be desired at any price. If by

magic there were no war in Iraq, I doubt Iraqis would celebrate much. They would still be tortured, starved, and murdered by a cruel dictator who has used chemical weapons against his own people. At the same time, Saddam Hussein and his cronies profit from selling Iraq's oil, leaving Iraqis nothing from their own rich resources. The cost of peace would be the blood of ordinary Iraqis.

History shows that the cost of peace can be too high. For example, imagine if Lincoln had pursued peace with those who fought for slavery. Imagine if the allies had pursued peace with Hitler. And finally, imagine the people of Kosovo if peace had been pursued with those who wanted to commit ethnic cleansing. And now, imagine the

people of Iraq if peace is pursued with Saddam Hussein.

I remember when I was in high school I took a history class. One of the projects in that class was to point out world trouble spots. One of the presentations that were done was about Afghanistan. The presenter talked about how repressive the Taliban were and how they had created this incredible ideology of hatred. My thought then, it is so far away, there is no reason for to care, for they are so poor and powerless. If we left the Taliban alone, surely someday it will collapse on its own. Of course, I was wrong.

The lesson I take out of what has happened in the last two years is no matter how remote and non threatening it sounds, letting an ideology of hatred to grow and prosper will come back to haunt us all. It does not matter if this is related to Osama Bin Laden, because all this hatred leads back to the same horrifying results.

Those who oppose war just keep forgetting about this fact when they repeat that this war is just about oil. They act as if nothing has happened in the last 2 years. Perhaps it is nostalgia for something easier, a time when the world was not so menacing, a time where it seemed conflict could always be solved by dialog. I too

long for those times, but the past will not come back by trying to relive it, like leaving inspectors in Iraq and leaving Saddam Hussein in power, dreaming that he is handcuffed.

This does not mean I long for war, or that I support the Americans all the way. They have not listened to those who criticize it, or respected those who feel reluctant about

releasing the darkness of war upon Iraq. George Bush has not inspired confidence he can rebuild Iraq by how he left Afghanistan to rebuild itself. But this does not mean he is more of a threat than Saddam Hussein.

In the end, I ask myself this question, "Does a

person like Saddam Hussein belong in the 21st century?" And if he does belong, then what does that say about us, about our sense of what is a threat and what is not.

"[I thought that] if we left the Taliban alone, surely someday it will collapse on its own. I was wrong."

ENGINEERING SOCIETY EXECUTIVE REPORTS

President Report

Dave Clegg

President



Spring is almost here...and so are finals. Only so many of these IW spews left! Gotta make 'em last!

As many of you may know by now, the Orifice was broken into on the night of Monday March 3rd. Apart from a great deal of damage done to our cabinets and such, the perpetrators made off with \$80 in charity cash, a digital camera, a digital video camera, the EngSoc laptop, and extra keys for many of the society busi-

nesses. This last theft resulted in the re-keying of many of the locales that the society operates. We have registered the theft with UW Police and are co-operating fully with them in order to retrieve the stolen goods and to catch the criminals responsible for this and over 40 more thefts across campus since January. So far nothing has come of this co-operation, as the thieves continue to run free.

The executives from both societies met this past weekend, and after nine hours a number of issues were decided upon. New security systems have been jointly approved and will be installed in the Orifice, the C&D and in POETS in order to protect these offices and student hang-outs. Unfortunately in some cases this will result in more restrictive policies and procedures regarding the use of these estab-

lishments. This is an unfortunate reality of having to protect these areas, and one that I hate as much as the next person. However, these steps are necessary to safeguard the equipment and items on which we spend your \$14 per term, and I ask that you please be understanding as we implement these new procedures as the term comes to a close.

EngSoc elections are in full swing right now! Good luck to all candidates that are running, congratulations to those who have been acclaimed (pending approval, of course!), and to all voters I encourage you to attend the candidate's forum in CPH Foyer on Tuesday March 18th at 11:30 AM. Voting will take place on Wednesday March 19th in CPH Foyer, so come on out and cast your vote in order to keep EngSoc strong and relevant.

On a final note, congratulations to the Bus Push, Wheelchair Basketball, National Engineering Week and Charities directors who have gone absolutely bonkers over the last two weeks running some absolutely fantastic events for all of you out there! Thanks to all the profs who played along with our Pi-Throw competition, and I'm really looking forward to an awesome final few weeks here. Stay tuned for even more from your Engineering Society as the term comes to a close in a few weeks time!

Vice-President External Report

Steph Purnell

VP External



Well, we're past midterms now, but the fun has been non-stop. There have been numerous external events in the past few weeks:

- La Resistance won the Wheelchair basketball tournament last weekend—the Civs were runners up! Congratulations!

- The annual Bus Push for Big Brothers and Big Sisters was a huge success, also last weekend. Thanks to Lesley and Kathy for a great event! My favourite part was the article in the Record the next day referring to Dave Clegg as "a sweaty fourth-year student"—good times.

- Explorations was held this past week. Every year, students in grades 6 through 8 come to Waterloo to have some fun with engineering. The kids tour around and get to see everything from a six-legged robot to ice cream made with liquid nitrogen. We had a lot of fun this year—despite the weather whilst I was barbecuing!

- Women In Engineering has had a few events—including a "Women in Technology" night and a WIE Reception this past Thursday. The Women in Technology evening was held with Women In Math and featured speakers on various topics including sexual harassment in the workplace.

- The Bridging the Gap lecture series finished up last week with Dr. Tighe from the civil department giving a presentation on opportunities in engineering. Thanks to all our presenters this term.

- National Engineering Week was last

week and every day saw a new seminar showcasing another aspect of engineering

Phew! So this is one of my last instalments of my VPX Report. It's been a lot of fun as well as a lot of work. Hope it's been as good for you as it has for me!

Vice-President Internal Report

Josh Levitz

VP Internal



Seeing as I missed the deadline last week, I decided all my avid readers would be eagerly waiting a great iron warrior spew from me. Or, more realistically, most of you didn't even notice. Either way, here we go.

So the last few weeks have been ridiculously busy with EngSoc events, projects, midterms, and who knows what else, but the exec really appreciate the great atten-

dance we've had at all our events. I'd like to point out immediately that B**5, one of the greatest nights of the term, was won by your very own executives! There was really no competition but we thank all the teams for trying!

The upcoming schedule is just as busy as we head toward finals, so come on out to get a night off here and there. Tonight and tomorrow, EngDrama is putting on the production "Moonchildren", so hopefully you already have your tickets. The play is always one of the highlights of the term and this term will be no exception I'm sure. Sunday the 16th is the EngHockey cup so sign up your teams in the orifice if you haven't already. Wednesday the 19th brings us TalEng. For the first time ever

we will be having it at Loose Change Louie's (underagers admitted) so sign up your great talent, whatever that may be, today - everyone make sure to come out and heckle the rookie MC, Dave Johnson (and the presenters of course). Everyone should have their video cameras already taping for the film festival on Thursday the 20th - the wonderful 3A mechs who brought you "Ball in the Groin" are strong contenders for the prize this year, as they have more than 20 minutes this year to prepare a quality film. And looking ahead, the final EngSoc meeting, the Potluck, will be held on Wednesday, March 26th.

One more small note: As we are getting ready for a new exec to come in, it'd be great to hear your final thoughts

about us, the society, or otherwise. Any ideas we here from you we can pass onto the incoming exec to make sure the state of the society continues on its great path. See you all in the next few weeks and continue to work hard for finals.

Josh "Still no Bomber eh? Ah well, Weavers can take my money now" Levitz

Vice-President Education Report

Dan Robinson

VP Education



Finals are just around the corner and the pace of the term is really picking up. It seems like every day there is a project, assignment, quiz or presentation due. With all this distracting you guys I just wanted to ask you to please take the time

to properly fill out your professor evaluations. These are an invaluable tool for professors and are used to improve courses for future students. Also, the results of these evaluations directly affect a professor's salary, so weigh your judgment accordingly.

Thank-you to everyone who participated in the debt load survey. Your results help to inform the faculty of the current hardships that the 15% tuition increases are creating. If you wish to find out more about the current financial situation of Ontario universi-

ties and students check out the article I wrote on this subject in this Iron Warrior. For further information the background information I based this article on is available in the orifice.

Engineering Society Executive elections are upon us and I urge all engineering students to participate. Come out to the forum, listen to the debates and make your voice heard.

For all of you getting ready to go away on work term, don't forget that next term you

will need to have your resume in HTML format, so I advise working on this over the work term.

Dan Robinson

ENGINEERING SOCIETY EXECUTIVE CANDIDATE REPORTS

President Candidate Report

Josh Levitz

**President
Candidate
3A Mechanical**



Hello Everybody,

I now get to write to you in a different context than I am used to as VPI. I get to let you know that I could very well be your next President acclaimed, provided I've made less than one third of you dislike me.

I want to start off by saying I am genuine-

ly excited for this opportunity. For the last 16 months, I have been working as VP Internal and enjoying every minute of it (well most minutes at least). I developed a great understanding of the Engineering Society, and heard numerous opinions on the state of it. From these and my experience, I feel I am definitely ready to take on the larger responsibility of being President. I want to bring about some changes, with your help and direction of course, and being President gives me a great chance to do this. The society is going to get better than it already is, and I will work my #@! off to make sure it does!

I'll throw a couple ideas out I have right now but there will be many more coming

as the term comes to a close. First of all, I am a huge advocate for interfaculty, and moreso for interschool, relations. I have already made numerous contacts throughout Ontario schools and intend to get some events running between us. I also intend to follow up on the prank side of things in Waterloo - I'll leave that at that for now though, but stay tuned! One event that inspired me this term was the ski trip put on by special events. We had numerous people on that trip which had never been to an engsoc event and it was great to see that. With the new exec, I want to try to implement more of this type of event, and get participation levels in EngSoc up to a new high. And numerous upgrades are being discussed right now for POETS and

the orifice, and besure that I will be following up on all of them!

Anyway that's my short little message for now. I just want to let you all know a bit about my ideas, but there are a lot more which I won't mention here. I look forward to the chance to represent you in all aspects of university life - whether it be about tuition or bar closures - and I hope you trust me to do it. I wish all the other candidates good luck with their campaigns and I'll be seeing you all soon.

Josh Levitz

Vice-President External Candidate Report

Jeff Alfonsi

**VP External Candidate, 2A
Systems**

Hey everyone,

Many of you may not know me. My name is Jeff Alfonsi, a second year punk in Systems Design. I am an ESSCO project director and a big ski bum!

As VP External, my main goal is to improve Waterloo's relationship with other Ontario and Canadian universities. I hope to help organize inter-university

and faculty events (such as AHS night and DUSTED), so that we can forge new relationships. Furthermore, I will encourage UW students to participate in a large variety of engineering competitions and events.

I think that we will have a great year filled with new events and traditions.

I hope all of you will participate in external events and competitions to help build a strong and personable reputation for Waterloo among our engineering peers.

Cheers,

Jeff Alfonsi

Vice-President Internal Candidate Report

Amy Gill

**VP Internal
Candidate
2A Chemical**



Hello! My name is Amy Gill. I'm running for VP Internal. For those of you who don't know me, I'm in 2A Chem. I come from a big family in small rural northwestern Ontario town. I'm involved with the upcoming frosh week, in the engineering play, campus day, explorations,

semi-formal and just basically helping out wherever I can. I really enjoy being involved and working with people. Before university I spent a lot of time helping to organize hockey tournaments, coaching ringette teams and teaching and participating in local community groups. For about as long as I can remember I've enjoyed organizing and planning.

As VPI I believe that it will be very important, with the upcoming double cohort, to expend extra energy into incorporating more of the young students into the engineering community. Getting people out

and involved in activities will be key. Creating events, theme nights and such, which they can help to organize for themselves and their peers, can definitely add to the overall sense of community. University is a time full of memories. Having participation memorabilia (patches) available from events, eg: bus push '03, E.O.T '04, mud bowl '06, is a new way to remember some of our fondest memories, and they would definitely liven up those coveralls. These are just a taste of some of the ideas I've got, but really we're here for you. During the next week when you see me around don't hesitate to ask

any questions or bring any suggestions that you may have. You've got a great group of candidates for this election available to you so definitely come out to the forum and approach us at any time. Have your questions answered by us. With everyone's interest and participation this can be a fantastic election. Hope to be able to put my ideas to work for you in the future.

VP Internal Candidate
Amy Gill
2A Chem

Matt Strickland

**VP Internal
Candidate
2A Electrical**



Matt Strickland, a 2A Electrical Engineering student, claimed recently that as an "internationally known figurehead person" and "influential godfather of this country," he's got enough powerful friends to become EngSoc's new

Vice President Internal.

Strickland claims ties - shady, underground ties - to the likes of Prime Minister Jean Chretien, US Vice President Dick Cheney, numerous CIA and KGB affiliates and several Hollywood celebrities. These run deep, according to the first-time candidate, who repeatedly has referenced some of these alleged relationships when asked what he would bring to the position. In addition to these celebrity links, Matt brings three school terms of raw experience to the table. He's been his class

EngSoc rep since 1A, held Wheelchair Basketball and Class Rep Advisor directorships, been an Engineering Frosh leader, and sits on the ECE spirit committee. At a campaign rally held Tuesday morning in MC 1085, upwards of 100 students and one calculus professor braved the early 8:30 start to come show their support for the young VPI candidate. Speaking from the back of the class, Strickland expressed some of the goals he hopes to accomplish if elected to the position. These include helping directors better communicate with classes about their

events, fostering more inter-class competitions and challenges, and making the Engineering Society more open and accessible to all its members. Lowering his voice and looking shiftily around him, Matt also took the time to praise the three other candidates running against him. "They're all top notch people, really!" He stated. "I think it's going to be a close race." Just remember to vote Strickland on March 19th!

Karim Lallani

**VP Internal
Candidate
2A Systems**



I'm running for Vice President Internal (VP-Int), because I'd like to make many improvements to the Engineering Society. My main priority as VP-Int will be to increase the spirit within the Engineering Faculty. As it stands right now, only a lim-

ited number of classes participate in various events planned by EngSoc. To solve this problem, I will increase the lines of communication within EngSoc. I'm going to create a few new directorships including communications & spirit director. The communications director would help promote EngSoc events and ensure that all classes are kept up-to-date with all issues surrounding EngSoc. The spirit director would be in charge of planning spirit days, parties and various other spirit events. I feel I'm a good candidate for VP-Int, because I'm dedicated, hard working and

experienced. In high school, I was the student council president & valedictorian of my school of over 2200 students. I've been very involved with EngSoc since first year. Last term, I planned and ran a fundraising event called Vince Day, and raised over \$7000 for the Canadian Cancer Society. I've ran TalEng for the past two years, been class representative, volunteered for the EWB conference, shadow day, frosh mentoring, explorations, campus day and various other events. Within my systems class, I constantly try to increase the spirit of my classmates by

organizing class parties and spirit events. I hope to spread the energy and enthusiasm of my classmates to all of the students in engineering. I'm a Huge and Scunt committee head for Frosh Week 2003. So, as you can see, I'm very involved within the Engineering Society. I'm very friendly and approachable, so I'll always be open to hearing any suggestions or criticism. I'll make your voices heard.

Remember, if you want someone dedicated, hard working, and experienced, vote Karim Lallani for Vice President Internal.

ENGINEERING SOCIETY EXECUTIVE CANDIDATE REPORTS

Vice-President Finance Candidate Report

Grant Holohan

**VP Finance
Candidate
3A Mechanical**



Hi there, and welcome to my spiel. First off, for those of you who don't know me, I'm in 3A mechanical, and I've been involved with all sorts of EngSoc stuff over the past three years.

I'm running for this position because I believe EngSoc relies on the strength and dependability of its VP Finance. You may think that there's not much to the job, but the fact is that you need someone responsible, conscientious, and organized to be in charge of the EngSoc budget. The only income for the budget is the \$14 EngSoc student fee. This fee hasn't been changed in six years, and I am committed to ensuring that it won't increase in the midst of all the other rising student fees.

Why me you ask? I'm Headcom for Frosh

Spirit, enthusiasm, involvement, and the capacity for hard work are just some of the characteristics I possess and intend to bring to the position of VPF. My experience for the role originates in my keen interest in finance. I was my high school's Student Council Treasurer, and I am the current EngSoc Director of Finance.

VPF is often considered a maintenance role involving balancing the books, designing the budget, and making sure that cheques are written and everyone is reimbursed and happy. I promise that I will perform beyond the expected core duties

of the VP Finance, and bring new ideas to the EngSoc Executive. There are also a few goals as VP Finance I would like to see accomplished:

1) Increase availability of financial information by publishing it on the EngSoc website.

2) Create a record structure to keep track of all EngSoc Assets for insurance purposes.

3) NO increase to EngSoc fees!!! With the right budget we can do anything.

which had activities such as bands playing during the lunch hours and the Duct Tape Sculpture contest. I also initiated the EngSoc Rock-Paper-Scissors tournament (check out the plaque in the EngSoc trophy case!).

Well that about wraps things up. If you want to know more, stop me in the halls and we can chat it up. Remember to vote for Grant Holohan for VP Finance on March 19th.

Some might say that VPF is a dull job. Well duh, but I am a dork and I like money; especially other peoples' money. Granted I won't own any of this money, but I can pretend like I do.

On a more serious note, I know I have what it takes to do this job and do it well. Thank you for your time.

Yours in prosperity ,

Dave Johnson

David Johnson

**VP Finance
Candidate
2A Systems**



Dear Waterloo Engineering,

In the immortal words of the Beatles: , "Your lovin' gives me a thrill, But your lovin' don't pay my bills,". I am here to pay the bills. I am your man for VPF.

Vice-President Education Candidate Report

Emma Saask

**VP Education
Candidate
3A Mechanical**



Hi there! My name is Emma Saask, and I want to be your next VP Education. I have some very specific goals that I'd like to achieve in the position, and the experience and dedication necessary to follow through on them.

As I'm sure all of you have noticed, your tuition has increased at a staggering rate. What you may not know though, is that the University administration has not gathered any data relating to the impact of these increases on the accessibility of education. At a recent board of governor's meeting, Provost Amit Chakra said that the outlook

was "too bleak" and that they did not want to think about the effect of the increases on students. Well, I can say that I do want to think about it, and if elected I plan to perform a study researching the financial impact of rising tuition on accessibility to education, and prove to the administration that they can no longer afford not to think about the repercussions of their actions.

Another initiative I'd like to take on is to work with the Feds to build online course critique data. As you may or may not know, Engineering has one of the most thorough and well regarded systems for course critiques in the country. For any course in Engineering, data is publicly available on the results of these critiques, so potential students can assess what previous students thought of the course. As Engineers we don't take only Engineering courses though, so while we have plenty of data for our own courses, there is little or

no information about the Complimentary Studies courses available. By working with the Feds, I believe that we can not only bring our expertise in course critiques to a campus wide level, but draw on a much larger student base for critiques of courses outside of Engineering that Engineers might be interested in taking. Finally, by putting this information online, I hope to make it more accessible to students, hopefully encouraging participation in the Course Critique process.

Since I have been my class' academic representative for five terms, I'm very used to defending the educational interests of my fellow students. In addition to this, while a SuperHuge for Engineering Orientation this past fall, I became quite adept at negotiating with several different branches of the University administration. This is a skill that is essential to the VP Education position, since at its core the position is

defined as representing the academic interests of the students. Finally, beginning in May I will be representing Engineering students as a member of the University Senate, and I feel that my position as senator would be extremely beneficial in being able to perform the duties of the VP Education. Since the Senate is the main governing body of academic policy for the University, I will have access to up to the minute, unfiltered information as soon as it becomes available.

In closing, let me say that while these projects are important to me, what is more important is that I represent your desires and interests. If you'd like to talk to me about the position, my ideas, or just about anything, stop me in the hall, find me in Poets, or drop me an email at esaask@eng-mail.uwaterloo.ca.

old exam bank, and a creating a searchable automated scholarships database.

Well that's about all I have to say for now, besides of course vote Jenn for VP Education.

Jenn Bell

**VP Education
Candidate
2A Chemical**



Hi! My name is Jenn Bell, and I'm in 2A Chem. I'm running for VP

Education to carry on the improvements that Dan Robinson made during his term. I feel that there's a lot the position of VP Ed can do, but it requires someone with the vision to do it.

I'm currently involved in ChemEngSoc as VP Internal, and I was one of the semi-formal directors this term. I'm also a class rep for EngSoc, and I constantly volunteer my

time for all the events offered throughout the term. To me, involvement in EngSoc is paramount to a well-rounded education.

As VP Ed, I would like to work on improving communication between the society and the departments. There are also many other areas I feel could use more work. I'd like to continue the trend towards placing important information online, such as the

extremely involved in the school despite the fact we are in first year. I am very active within the community and in organizing events for my class. I attend all events run within the Faculty of Engineering. During my first term with A-Soc I shared the Paul Harlick award. This demonstrates my ability to get involved in EngSoc. I am a very outgoing and positive person, and I feel that my previous experience, my love for Engineering and dedication to this school will make me an excellent candidate for this position.

WEEF Director Report

Erin Young

**WEEF Director
Candidate
3A Enviro-Chem**



WEEF is good. I plan to make it better than ever! Since 1B I have been my class weef rep,

and this term I am doing Finances for WEEF. And since I have been acclaimed I am your new WEEF director for next term.

I plan to raise awareness in the student body, of the distribution of funds that occurs within the faculty, and to student teams. I would also like to aim for low refund rates.

Paul Paquet
1B Civil, VPI Candidate

Although I am only in 1B, I believe that previous experiences that I have obtained in a student council setting make me an appropriate candidate for VP Internal. In high school I was the Social Director, which would be the equivalent of the Engineering Society's VPI or VPX. Currently I am the class rep for the 1B Civ class (Full Tilt). My class is

POINT VS. COUNTERPOINT

Was the \$11 Million Lawsuit Against the University the Right Move for the Feds?



Jeff Henry

3N Computer

Who cares if the administration runs my bars – I just want them open so I can drink! Screw autonomy and just cave in so we don't irreparably damage our relationship with admin! Eleven million dollars? That's ridiculous. What's FEDS going to do with all that money – with all of my money? I'm already paying 15% more tuition, is that going to jump even higher because of this? And how much is this lawsuit going to cost the FEDS? I'm getting screwed on both ends!

At least, from what I've seen over the past weeks and months, these seem to be the general reactions from the student population. But contrary to popular belief there is some degree of logic behind these actions that do justify pursuing this "aggressive" lawsuit.

Among the objectives in its Charter of Incorporation, it is stated that the Federation of Students is charged with administering the affairs of the members of the corporation. Pursuant to that objective, the Federation enacted policy three, "Statement of Autonomy", initially on 24 March 1996 and revised on 12 March 2000 resolved that "While the Federation of Students welcomes the opportunity to hear advice and discuss policies, no form of a committee dealing with the Federation of Students will be permitted to exercise any control over the activities of the Federation of Students."

So, by policies enacted by a Federation council representing students, the Federation is required to maintain its autonomy in management of its own affairs and cannot tolerate interference. Therefore the administration's offer to oversee management through both committees involving FEDS managers and UW Bar Services, FEDS executives and UW Food Services, nor the overriding veto of UW Director of Business Operations can be acceptable to the Federation under policy 3.

The university proposal, which essentially has not changed in the time since the first meeting of 28 January 2003, included a structure their lawyers believed complied with AGCO regulations and would allow them to control their liability in advance of a younger student population by removing adult decision making power from the Federation. While the Federation's lawyer disagrees with the administration's legal opinion, the primary problems are the lack of movement in the alleged negotiation process on the side of the administration and the continued portrayal and treatment of the Federation as an irresponsible juvenile body.

According to the undergraduate calendar, the mission statement of the Federation includes fostering mutual respect in undergraduates with a vision of a strong, stable

structure to empower the student community. Furthermore, the recent publication from the "Younger Students Committee" chaired by associate provost Catharine Scott (<http://www.studentservices.uwaterloo.ca/YoungerStudentsReport.pdf>) indicated even sub-legal age students would sign residence contracts because "Having parents sign residence contracts is contrary to the university's philosophy that each student has a responsibility to act as an adult and be treated as an independent person." That determination was made by the committee despite legal advice expecting "...that in any action against the university for injuries suffered by a student, the age of the student would be a factor, and the court may impose a higher standard of care upon the university and upon those for whom the university is in law responsible in such cases."

By delivering demands and ultimatums that the administration knew the Federation could not agree to then by subsequently violating signed agreements with the Federation through unilateral actions the administration hardly follows the laurels of mutual respect nor respects students as the decision-making adults it claims they must be. So if any Federation-administration relationship has been or will continue to be damaged by this issue it was the administration who broke the trust.

In those circumstances the Federation can hardly be blamed for believing the operation of their establishments for students, by students will not be curtailed under an administration that is hypocritical towards its treatment of students.

With respect to the lawsuit itself, the Federation and the administration had reached an impasse. Administration had waited a month ignoring multiple deadlines to arrive at a proposal not structurally different from the original and had not presented a solution that showed understanding of the Federation's concerns. The Federation had presented an arrangement where it would both allow administration to alleviate significant legal liability while allowing them to regularly monitor and discuss Federation operations at the establishments. As in the 1976 and 1984 contracts, if violations were found by the administration's representative they would be brought to the on-duty manager for immediate correction.

The immobility of either party and the lack of respect for the Federation on administration's part during proceedings to date require deadlock-breaking, last-resort measures that force good-faith negotiation or at least mediation. The threat of the lawsuit should be enough for the Board of Governors to require administration to work to actually resolve the issue instead of imposing a solution. That is, to negotiate in an air of mutual respect that can avert the brunt of the litigation.

The hope of the litigation is that a settlement can be reached that actually addresses the concerns of both sides in a manner both can accept to avoid the costs that neither party can afford. The administration



Joseph Fung

3N Computer

The primary roles of the Federation of Students are to represent student opinion to the school and media and to manage services that benefit the students of UW. The \$11 million lawsuit filed on March 4th accomplishes neither. There are two primary reasons why this is the case – the money, and the bars.

The amount of money involved is a serious issue in the minds of UW students. Twenty minutes after news of the lawsuit was published on uwstudent.org, a post was made by Lino Demasi neatly summarizing the problem.

"Where does FEDS get their money from? Me. Where does the University get their money from? Me. If FEDS wins, who is going to end up paying for this \$11 million? Me. If FEDS doesn't win, who is going to end up paying for

all the legal fees that are piling up on both sides? Me." The point being, that although the Federation of Students is trying to force the university administration back to the bargaining table while trying to illustrate the severity of the problem, they are doing it at great cost to the students.

It has been noted that the Feds' probable underlying goal is to reach a settlement, that there is no genuine desire to see the lawsuit through. Should the lawsuit be settled, the University's legal fees will still be billed to the students. Should the Feds win, the university will have to make up the cost – likely through tuition or fee increases. Nevertheless, in both scenarios the student body will have to help recuperate the costs of a legal encounter.

Additionally, it is increasingly unlikely that the Federation of Students will be victorious in such a legal battle, meaning the expenditures will have been for naught. What the Feds seem to not see, is that the University can afford to out-wait the students in this matter as they are in a better position to afford a long legal battle. Not only do the students have fewer financial resources, but the student turn-over rate (both in terms of elected representatives and voting body) is much higher than that of the administration.

It is entirely too likely that the administration will simply wait for the Feds to give up and accept any agreement the universi-

ty proposes – thereby reaffirming the students' position as juvenile and incompetent.

The second reason why the lawsuit was inappropriate and far from the best move is that most students would rather have their social establishments in operation than in taking umbrage to yet another slight by the administration. The University of Waterloo is known for treating their students as clueless minors – a lawsuit will not change this fact; UW students understand that.

To most students, the issue of the moment isn't who runs the Bomb Shelter or Fed Hall or whether the Feds can profit from it, rather the issue is whether these establishments are open or not. To the average UW student, Feds would be better serving its role by going back to the negotiation table and by getting those bars open.

The Federation of Students accuses the administration of not being willing to negotiate, while at the same time making outrageous demands of the same administrators. The Feds is accusing the University of Waterloo of illegally contracting out the sale of liquor, while trying to force them back into that same agreement. This is not a constructive way for the Feds to reach a solution.

A more preferable route would have been to agree to the interim management the University proposed, while simultaneously pursuing the option of an independent or joint liquor license. This method would have resulted in a more amicable working relationship between the students and university, would have avoided any interruption in Bomb Shelter or Fed Hall services, and would have given the Feds more time to determine whether or not they actually had a sound legal position.

As it is, it seems they have been misguided into an untenable position that will please few, frustrate many, and cost everyone a great sum of money.

Editor's Note: Point vs. Counterpoint is intended as a forum for objective and thought provoking debate on various issues. The views and opinions expressed here do not necessarily reflect those of the author(s), the Iron Warrior, or the Engineering Society.

cannot cover the costs of either the insurance premium increases an award to the Federation would cost, especially if they are found negligent, while the Federation for the sake of its members cannot allow that expense to occur. After all, the first part of the Federation's mission statement

is "To foster undergraduates' pursuit of higher learning, personal growth and an enhanced quality of student life" – a pursuit made more difficult with each impasse and with each delay. A lawsuit can indeed be the beginning of the end in more ways than the fatalistic one.

Columns

PI-lights of the Week

Preya Mistry

2A Systems Design

Pies, Pies and more Pies. As most of you may have witnessed, National PI in the Face week went on last week, and it was a huge success! In total, we were able to raise over \$1400 for the United Way! One of the charity directors got the idea from observing this city wide event, while on coop last term in Calgary, so we decided to give it a shot in Engineering here at UW.

Initially we decided to run the event for three days, from Wednesday to Friday, but as the week came to an end, the PI orders were snowballing in like crazy, and we slowly began having dozens of orders for the next week!

For those of you who didn't quite catch on



to what it was all about, the basic idea was that you could buy a PI for anyone in engineering, fellow classmates, TA's, or even your profs, for \$5. Then this person would be approached with the PI, and given three options:

1) Take the PI in the Face, 2) Redirect it to another poor victim for \$10, or 3) Keep it for \$10. (Of course, participation was optional, but since it was for the United Way, we had a lot of people supporting this event.)

Notable PI-Ings...

The longest lasting Pie (There was actually a tie between two pies):

One which was bought by Dave Clegg, to Tania Bortolon, delivered during an Engsoc meeting, which was redirected about 7 times, before good old Dave decided to take one for the team!



One which was bought for a Chem Eng Prof, from the 3B Chem class, which was redirected among the Chem Profs also about 7 times, before it finally ended up in the smiling face of Professor Fowler.

The Most Pies taken by one Person at once:

This goes to E&CE Professor Paul Ward, who was sent 5 pies from one of his undergrad classes, and took all 5 in the face!

Largest Group PI-ing:

The devious gentleman in the 2A systems class decided to buy 13 pies for 13 girls in the class. They also threatened that for each PI we redirected back at them, they'd redirect it back, and send another two back to that girl. In the end, 13 girls (including Professor Rohlf) were pied, six of which were PI ed at the same time... it was quite a sight!

Most Money Raised from a PI:



One E&CE class bought a pie for Professor Gorbet, who agreed to take the PI if his class could raise \$150. In the end, they were able to raise \$203, and Prof. Gorbet took the PI!

Most Money Bid to PI a Person:

During the extensive PI-ing of Professor Gorbet, Dave Clegg bid \$25 to "deliver" the PI. Dave should probably also get the distinction for most money donated by a single person, since he must have had about 10 pies directed to him at one point or another, 4 of which he took, and many more which he redirected several times. Thanks for the donations Dave!

Thanks a lot to all of our volunteers who helped out with National PI in the face week, and to all those who were such a good sport about being Pied!

From Left to Right: Prof. Gorbet, Prof. Savage, Prof. Ward, Karim.



About Co-Operative Education - Part I

Jay Liu

3A Computer



Each year, hundreds of high school students are lured to the departments of ECSE by our shiny brochures detailing the exciting job opportunities that await them here in the middle of nowhere: FIFA tester at Electronic Arts, C# monkey at Micro\$oft, Linux hacker at IBM, lunchroom supervisor at Government of Canada, etc.

Then, the co-op job postings come out on the still dreadfully user-unfriendly psAccess system, and a few quick taps on their Palm handhelds reveal a less than ideal mapping function of jobs to students.

But they have excuses. They are only in their first year of a five-year long program. Many of them never had a job outside the fast food or discount retailing industries. A good number of them never ever had a job at all. All their knowledge of the working world comes from their parents and Dilbert comics.

It becomes a little more difficult to swallow when the student is in his 3A or 3B term. There, justifiably, is a sense of arrogance among upper year students. After all, it's no easy task to withstand monotonous lectures and suicidal midterm exams for three straight years.

Everyone, in the back of their heads, has this picture of an ideal job. Much like an ideal mate, but perhaps a little more realistic by comparison. And once you reach

your third or fourth work term, you start to think that you've suffered through enough to deserve that ideal job.

Nothing is a greater let down than being rejected for a job that you think you deserve. Then you start to swear at the employers for being dimwits. "Bush-like" is the first thing that comes to mind. That's the first stage of coping with defeat. The second stage is start being helplessly hopeful. "Maybe there was a computer glitch." "Maybe the employer filed the wrong papers / typed in the wrong ID." After a couple of days, reality starts to sink in. Maybe you really didn't deserve that job. The last stage is trying to find excuses for yourself. "That job probably sucked anyway." "The company is too far / too small / too big / too poor / too Enron-like."

That may help you feel better, but it still doesn't help you get a job.

The reality is that the world economy is not doing very well right now. With the looming war on Iraq, and a Republican world leader who, after three years on the job, still needs to assert his own sanity to the world once in a while, this economy might still be a few time periods away from repeating the irrational nineties. But that doesn't help to explain the declining number of jobs for UW students.

The fact is that the Canadian economy is doing very well. It is leading the G7 in growth. Inflationary pressure forced the Bank of Canada to raise interest rates in order to - get this - cool the economy down. The unemployment rate is now rivalling the American rate, the first time in many years.

Furthermore, ECSE students have no rea-

son to blame the slowdown in the IT industry for their job-searching troubles, either. Perennial technology giants like Microsoft, ATI, IBM, Sybase, just to name a few, continue to prosper in this difficult global economic climate. If anything, the rationalization of the technology industry is positive for us. The bubble in the 1990s created jobs that were not supposed to be there in the first place. It was a time of economic waste. Billions of dollars were destroyed on dotcom start-ups who had no ideas except to follow the herd. But the money is not the worst part; it's the waste of human resources. People who were working in "bubble positions" were simply wasting their time writing code for no apparent purpose. Anyone on the street who knew how to program an infinite loop in C was given a job with outrageous compensations that turned out to be worthless anyway. That necessarily diminished the value of truly competent and adequately training professionals, including UW co-op students. Although we were given jobs, that didn't mean we were particularly more competent than the guys in the colleges down the street. Rather, it merely implied that we were able to help companies burn through venture capital more quickly. Honestly, how realistic is a 98% employment rate for a group as large as our Faculty of Engineering anyway?

Now is a different story. Employers have become more careful in their selection of potential employees, because budgets are tighter than ever before. Not that such an extreme tightening is necessary, but at least they are choosing to err on the side of caution for a change. That line on your resume that reads "Waterloo Honours B.A.Sc." is no longer a ticket to arranged employment. It has never really been one. It just has become much less likely to be

one now. Increasingly, you actually need skills that can set yourself apart from the guy next to you, who sleeps through all the lectures and yet manages to receive more offers than you had cancelled postings.

So, what can you do to set yourself apart?

A common advice is to "soup up" your resume. Although it is absolutely certain that an aesthetically pleasing resume will make employers notice you, it is still important to have a resume that has substance. And substance is difficult to "soup up". Facts can only be stretched so far before they become lies. And if a paper full of lies does not get you to question your own ethics, you don't deserve to be in engineering.

A better solution is to find things that you are strong at and enjoy doing. Too many people, when they are turned down by their ideal job, start to be careless about the jobs that they pick to apply to. Even worse, many people who fail to secure a job after the initial phase become desperate, and start stuffing many dozens of applications indiscriminately into the beige application boxes, hoping to play the law of probability like they do in casinos.

It has to be kept in mind that co-op is not meant to be place where you find things to do between school terms. Rather, co-op is a process that helps you acquire the skills you need for your eventual integration into the real world. This may be done by being employed for four months. However, that is not the only option. Several others exist, and they will hopefully be discussed in the next issue.

To be continued...

SYaniDE Spirit

Karim Lallani

2A Systems



Although nobody is quite sure exactly what Systems Design (SYDE) Engineering is, I can tell you that SYDE students are very enthusiastic and spirited. The 2A systems class (SYaniDE) has been one of the most active classes within the Engineering Faculty since first year. Whenever EngSoc holds an event, there are always a handful of SYaniDE students in attendance. For fundraising events, SYaniDE is usually always the top fundraiser. Last term, we organized Vince Day, where we raised over \$7000 for the Canadian Cancer Society. This term, we won the penny drive, and raised a lot of money for pie in the face day. The guys in our class contributed money to see 13 girls pied. It was definitely a memory that will never be forgotten.

Recently, the class set new records for class spirit. In light of the end of midterms, our class decided to have a huge class party at POETS and attempt an Andre the Giant. With some of our biggest drinkers recovering from a party the night before, we thought it would impossible to drink 120 beers. However, 90% of the class showed up at POETS on Thursday determined to conquer the challenge. We even had a couple of our systems professors cheering us on. We drank 120 beers in less than 75 minutes setting a new record in POETS. After beating the record, we went to our Java class very buzzed. Almost everyone in the class had to go to the washroom a couple of times during the class. At the end of the class, we decided to attempt beating the all-time record of 244 beers drank by one class in one day. So, as a class, we went back to POETS, and drank 219 beers to clean out the POETS fridge. Unfortunately, we could not beat the record, because we finished all of the beer; however, we'll beat the record soon. Go SYaniDE go!



ESUSC Forum

Sandra Lê

4B Systems



On Thursday February 6th, the Engineering Computer User Support Centre (ECUSC) initiated a forum discussion to get some feedbacks from the students on the current services, and what changes and improvements would be desirable and expected in the future. The goal of the discussion was to brainstorm on ideas that would make the computing environment at Waterloo as enjoyable as possible.

Indeed, even though the ECUSC office is often crowded with students with computer problems, they want to get more (constructive) feedback about their current initiatives such as Willie, the new wireless network which is accessible almost everywhere in Engineering.

There was a low attendance at this first forum, but nevertheless very good discussions emerged. I was able to better understand the relationship between Engineering Computing and IST, its higher authority. I also got more information on the last e-mail rejection issue with the Yahoo Groups

(which should not happen anymore, hopefully), the whole privacy issue of each e-mail accounts (and consequently why we cannot have automatic class e-mail lists), and I even learned about the story behind the ex-Pulley Lab

"I was personally surprised to see how nice the people from ECUSC really are..."

Over the years, I have been able to observe and appreciate a lot of the ECUSC work, such as upgrading the systems, getting more computer labs with nice working desks and comfortable furniture, opening the accessibility to my account when off-campus through the mywaterloo portal and even when on coop!

This first forum was meant to be a launching platform to other more detailed discussion session about topics such as the wireless network, computers and software availability (e.g. Linux, usage of UW resources off-campus, new software required), the Nexus change-over, ECUSC office hours... In the near future, individual forums on these specific topics will be happening, stay posted to see when a forum interesting you will be happening. I also suggest taking a walk and go find out who is Paul McKrone, the man behind the automatic e-mail rejection service. I was personally surprised to see how nice the people from ECUSC really are and how hard they work for the students.



Sandford Fleming Foundation
E2 3322, ext 4008, sff@engmail
www.eng.uwaterloo.ca/~sff

CONGRATULATIONS

Winners of the Technical Speaker Competition held on February 13 are:

FIRST PRIZE (Tie)

Robert McArthur, Chemical Engineering
"Fuel Cell Reliability – Accelerated Testing"

Laura Naismith, Systems Design Engineering
"Design of a Wireless Golf Leaderboard"

Our thanks to Professor Legge, Chemical Engineering, for managing the Technical Speaker Competition for the Foundation over the past several terms.

EngSoc

Fire and Ice: The EngSoc Winter 2003 Semi-Formal

Christine McCullough
2A Chemical

Good friends, good food and good music. It's the recipe for the perfect semi-formal, and this term, the semi-formal directors managed to get the mix just right. With all that is going on this term, many decided to forgo this social event; well it was your loss if you missed it.

The evening started with soft jazz playing in the background and plenty of finger food to partake in, the perfect setting to catch up with friends outside the confines of our concrete classrooms. But at some point, and I can't pin point exactly when, this intimate, calm gathering of reserved adults turned into a full out, no holds barred party. The DJ was excellent. With his diverse selection in music, no one had an excuse not to dance, and I don't think anyone can say that they didn't at some point. However, we didn't know that he was going to be administering a sobriety test half way through the evening. As far as I am concerned, all the individuals pre-

sent performed the requested tasks, namely "YMCA" and "The Macarena", perfectly, with style and grace. We were reminded of our high school days with a little AC/DC and Guns n' Roses. Some of us were reminded of our hometown with the "Boot Scootin' Boogie". The DJ even gave those cute and snuggly couples an opportunity to get close and have a romantic moment with some slower selections.

At ideal moment in the evening, we were invited to enjoy some hot hors d'ouvers. I know the timing was right by the crowd that flocked to the table as the food was brought out. Ummmm...pot stickers.... A great array of sweets followed and were also very well received.

Everyone who attended received a tea light in a nice glass candleholder, dressed up with ribbon. Just the right thing to take home to remember the evening by. From beginning to end, the evening was a success and many thanks and congratulation go out the directors, Jenn Bell, Matt Stevens and Naoreen Hasan and the many volunteers who made the night possible.



The Muffinrific Middle of Term Pub



Janna Hickson

4B Systems

The middle of term party was like a batch of banana muffins – without chocolate chips.

The biggest news is that the muffins weren't burnt. With the "Bars Situation", as our campus politicians have dubbed it, the engineering society was initially concerned about alcohol-related events in the lounge this term. However, when asked about how the conflict affects the operation of POETS, one of the managers commented that it really hasn't. There was a bit more security at BOT, but they have

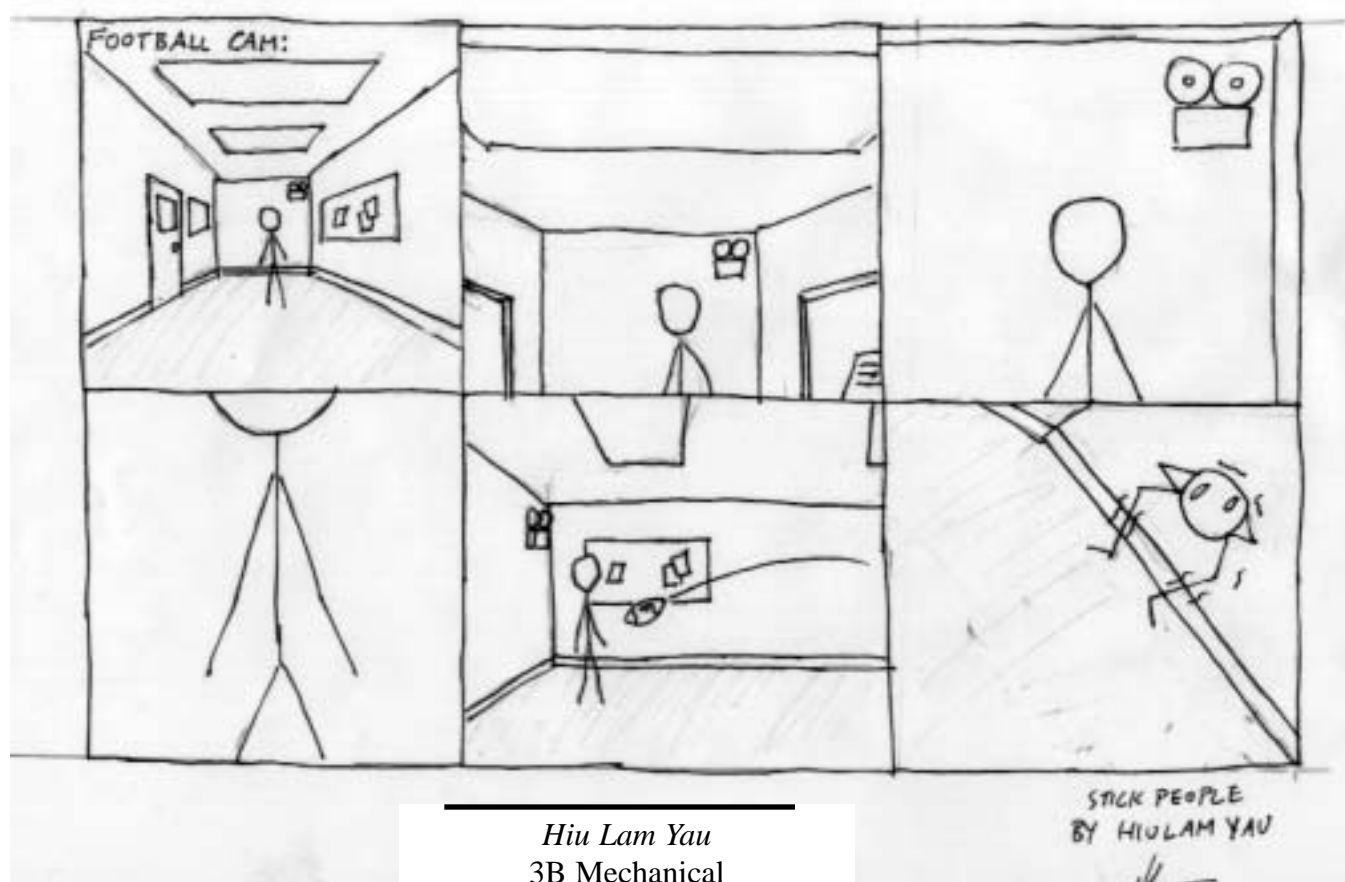
continued to follow the same procedures as before. Among other things, the managers make sure that they don't go over capacity, have food available and keep track of non UW engineering students at the party.

The party followed the standard recipe: There weren't any chocolate chips. The middle of term party is the first term party where newly-ringed engineering students are allowed upstairs in POETS to touch the TOOL. This usually adds some flavour to the whole event. Last year at this time there was a big controversy because the TOOL didn't come to MOT. This year, the TOOL showed up and the grads hardly blinked. One non-engineering society type explained that the grads had their fill of TOOL touching at IRS, just over a week earlier.

Arts and Entertainment

Go Go Comics!

Ryan Bayne
Mutant Dog Creator



Hiu Lam Yau
3B Mechanical

Arts Contest!

Grant Holohan and Dallas Card
Arts Directors

- There are 4 Categories:
- Poetry
 - Photography
 - Drawings/Paintings
 - Digital Artwork.

Prizes will be given to the winner in each category.

Get submissions in early!

Deadline for submissions is March 21.

People can submit art either to Betty in the orifice or in the Arts mailbox in the orifice. Digital Art can be submitted electronically (if it's small enough) to bsoc_arts@engmail.

I think that's it now.

Girls with Talent



The Spirit Room
Michelle Branch
Warner Brothers

Let Go
Avril Lavigne
Arista

French on her mother's side and Irish on her father's" from Arizona released a very successful CD album called "The Spirit Room", with the Top 20 singles "Everywhere" and "All you wanted". Avril Lavigne, as many of you may know, is an exciting young star from small Ontario town Napanee, who started "wowing people with her voice and character at around age 2". She's a 1984 product. Her album, "Let Go", gained prominence through "Complicated" and the infamous "Sk8er boi".



Judging by the cover, the two CDs have very noticeable similarities. Both are covered by dim and dead-serious shots of the artists. You'll instantly understand why these artists must have talents, since they could not have come so far just relying on their looks alone. The back covers are similar as well, with the artists posing next to their guitars.

Inside the cases, some similarities contin-

ue. Both disks contain very mellow tunes. The Spirit Room contains the highly-acclaimed inflective song "Goodbye to you", while Let Go boasts an equally well-received "I'm with you", which has been carefully distributed to radio stations in the past month.

While most of the tunes follow an upbeat tempo, they set themselves apart from traditional pop with soulful voices that somehow let your mind wander freely away from the stress of homework to somewhere the artists want you to be. The tone of the music manages to be positive while creating a uniquely inflective environment. The lyrics are excellent. There are great verses in virtually every song, thus too numerous to reproduce in this article. The songs are easy to listen to, and the lyrics are easy to follow. The music is memorable, so be careful to control your humming during the MSci lectures.

In general, the two CDs are highly recommended. Once you get your hands on them, you are guaranteed to want to play them over and over again in your gazillion speaker car stereo on those long weekend trips back to Richmond Hill for supper. Nevertheless, there are a few negatives. First of all, The CDs contain 11 and 13 songs each, a little few for the prices at which they are charged. Out of them, "Sweet Misery" of The Spirit Room drove me insane when the lyrics repeated the line "Sweet misery you caused me" for the thirtieth time. And "Sk8ter boi" is more of an anomaly on the "Let go" CD rather than the norm. So if you like that type of "out of the shell" music, there is very little else on that CD to satisfy you. The rap songs do rhyme, although some words are intentionally stretched longer than they should've been. Lavigne is not Eminem. For better or for worse.

Although neither artists have anything to show for after the Grammy's, which was swept by the more mature Noah Jones, these two CDs prove that the quality of young artists is still very respectable in today's music business.

Michelle Branch started playing guitar when she was 14 years old, and that's when her interest in singing grew beyond being a favourite pastime. The nineteen year old who is "Dutch-Indonesian and

Making Artsies out of Engineers

Dallas Card
3B Systems Design

As part of the ongoing struggle to convince the rest of the Waterloo campus that engineers are not just about math and science, the first ever Engineering Arts Week was held from February 24th to 28th. For five solid days, we invited engineers to imagine what it's like on the other side of campus and pretend they were artists.

Our reputation for surpassing expectations in that area is now well established, from events such as TalEng and the Engineering Play (March 13th to 15th). However, Arts Week was not so much about demonstrating our talent, as it was encouraging engineers to express their creativity. The act of creation is a wonderful experience, and while there is a tremendous amount of creativity and innovation in most engineering work, but there's a real difference between designing a bridge and sticking your fingers into some paint.

Monday kicked off Arts week with finger painting. Countless people stopped by to

add their own personal touch to a banner which remained on display for the rest of the week. The spirit continued on Tuesday with 10 teams competing to create the best duct tape sculpture. We were all astounded by what people were able to make from a newspaper and a roll of duct tape.

On Wednesday, people got out in the cold, and put their skill to creating snow sculptures for everyone's enjoyment. The poetry readings that were planned for Thursday unfortunately never got organized, but many people expressed interest and maybe we'll hear some at TalEng. As some consolation, throughout the week we had a wonderful series of musicians providing entertainment to audiences in CPH foyer. We all just relaxed on the final day of Arts Week, because, as everyone knows, artsies don't have classes on Fridays.

Many thanks to everyone who came out to paint, perform, create or just to enjoy the creativity of others. The enthusiasm we observed throughout the week is a strong indication that the tradition of Arts Week will continue.



Arts Week: Left to right, up to down: 1) Duct tape and newspaper, 2) Making tape... 3) Fresh entertainment with Guitars, 4) Hey, this is how it works!, 5) It looks like a lamp, sorta..., 6) The amazing walking duct tape person!



Arts and Entertainment

Cooking for Students

John Olaveson

1B Civil



Well now. This article will be a pleasure to write. You see, I love to cook. Not only that, I love to invent new recipes and then tell everyone about them. There is one recipe that will stay mine forever. To experience it, you must become my friend or be my family.

Now, to get down to business. Cooking for oneself is not as arduous and traumatizing as one may think. A good, tasty, healthy meal can be prepared in a short amount of time. And a good meal doesn't have to cost enough to blow your budget.

When preparing meals, there are a few rules to keep in mind. Simplicity is one. There's no use throwing lots of strange ingredients and spices into a meal just to see what it will be like. Unless you're at your parents' house or your friend's place, that is. No use risking your own food supplies now is there? And simple is cheaper, because you don't need to buy (or preserve) as much food.

Rule two is to buy things only when

they're in season and avoid luxuries. Sure, a t-bone steak tastes really good when done on the barbecue, but steak is expensive. Save that for when your parents take you out to a fancy restaurant, like the Keg. In the summer, corn-on-the-cob is plentiful. Anywhere outside the borders of urbanization (and sometimes within) you can find fresh corn stands with very reasonable prices. Do not buy fresh corn in the winter!!! It will cost at least three times as much as summer corn. Buy lots in the summer and then save it in the freezer if you must, but don't buy winter corn.

Accessorize your dishes. You don't need to have bland Kraft Dinner all the time. Add some veggies, perhaps some peas or carrots or mushrooms. Make it like a pizza. Toss some sausage in there, or some bacon (if that's not out of your price range, either), or vegetables. Spices are a good additive to food, as well. A twist of lemon can turn your salad into something different and more palatable. Curry is one of my favorites. It goes on eggs, pasta, pizza, chili, and lots of other stuff (opportunity-permitting).

"You don't need to have bland Kraft Dinner all the time."

Here are a few tips to staying healthy through food. Don't eat fast food. Grease in moderation won't hurt you, but a meal that's at least half grease will certainly clog some arteries. Keep your diet in balance. Meat is all well and good (especially for those carnivorous men out there; girls, you know who I'm talking about), but meat by itself ain't so great. Add those forgotten veggies. There are lots out there to choose from. Entire walls of supermarkets are taken up just for veggies.

Then there's the fruits. Juicy, sweet fruit. Again, the choices are many. Apples, bananas, and oranges are the three basics. Berries, melons, and all the other miscellaneous fruits also taste great. There's nothing like juicy cantaloupe in the morning, or strawberries and bananas on cereal.

Grains are essential, too, but don't go overboard. Sure toast is easy to make, but it tastes much better with jam or honey or something else on it (even a little butter). Pastas of all kinds are available, easy to make and easy to serve. Heat some sauce, grate some cheese, or just dash on some spices! A great treat for a pasta-lover like me. The quickest recipe I've got for pasta

I have is this; cook some pasta, add a little butter to prevent sticking, then add curry and garlic until you have enough to meet your desires. As simple as that.

A few wonderful, nutritious, and easy dishes are the following; chicken caesar salad, spaghetti with tomato sauce, a sandwich (don't forget lettuce and/or tomatoes). I like to stick to what I know, so my personal list is not so long. But I'm sure that all you intelligent readers can think of stuff to whip up to meet your dinner-time cravings.

Cooking for yourself isn't so hard. Just maintain the balance (oh, I forgot all about dairy!) and you'll do fine. And if you're a few minutes late to lecture, at least you'll have had a good home-cooked meal. Where do you think chefs learned how to cook, anyway? Certainly not in class.

A word for the future. When you can afford to waste a few supplies with an unsuccessful attempt at a meal, then be creative! Add those crazy things together! And if you make a good meal, you can name it after yourself and sell it to someone. Or be like me and just keep it for yourself. Some things are better to be treasured, like a fine bottle of wine.

The New Matthew Good

John Olaveson

1B Civil



Avalanche
Matthew Good
Universal

Matthew Good has a new band... well, a new temporary group of musicians. There's no fixed band members, as far as anyone I talk to knows. But the sound is striking and the music is still as good as before.

The first single, "Weapon," was released months before the CD was in stores. It was a hit from the start. There's power within the song. Matthew Good has adopted a new attitude; he's much less cynical and depressed than he was before. In all of the songs this attitude comes through.

Matt Good maintains parts of his old opinions. For example, "Twenty-First Century Living" continues the analysis of society begun in Beautiful Midnight's "The Future Is X-Rated." The song takes a fast-food attitude towards big issues. How do you super-size ambition, or the government? "Super-sizing life" is becoming a

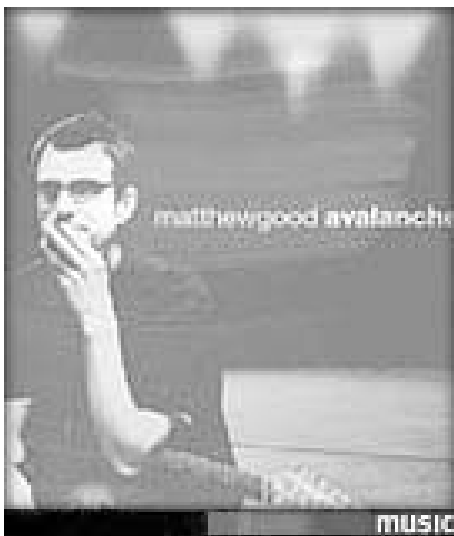
big demand in society, and Matt Good is fighting that tendency.

Matt Good's first true love song is found on this album. "Song for the Girl" shows part of Matt Good's new non-depressed emotional state. The song is not even the typical love song. It doesn't draw on any clichés, nor does it follow the typical form. It expresses the balance that love can bring to a life. The song is a great turnaround for Matt and his former dark image.

The liner notes for this album contribute to the beauty of the album. The paper is of very high quality (this quality may help to justify the excessive cost of CDs) and has scenes from the video for "Weapon." Also included are semi-transparent inserts that are not found in other CDs and "hidden" messages permeate the notes. In all, the notes contribute to the uniqueness of the Matt Good sound and image.

Released last Tuesday the 4th of April, Avalanche is expected to be a successful album for Matthew Good. This CD will

show all fans of Matt Good that great music will still be produced by this talented musician, old band or no. The uncharacteristic cheerful sound is a welcome addition to Matt Good's music. The big question now is when will the next album be ready for release.



The Legacy of Mr. Dressup

Illan Kramer
3B Electrical

Everyone who was ever a kid felt a loss last week. As if losing Mr. Dressup a few years ago wasn't enough, we now have to deal with a fellow childhood icon, Mr. Rogers.

The man who was well known for his trademark cardigan and sneakers died last week at his home in Pittsburgh.

Few things remind me of childhood as much as Mr. Rogers does. I remember a number of things that I confusing as a child, like how do take your outdoor shoes off when you walk inside and put on some special pair of "indoor sneakers." I never quite understood why he didn't just walk around in slippers or socks. The second pair of shoes just never made sense to me.

The cardigan was a whole other issue. Sure you wear a sweater if you're cold, but who wears a sweater in the house at all times? For a 5 year old ankle-biter like myself who used to wear t-shirts even in the winter much to the dismay of my mother and grandmother, this guy who seemed to always be cold was an oddity.

Then there were his fish. He had the most beautiful aquarium I had ever seen (having never at that point in my life ever visited a real aquarium or had any friends with nice

fish tanks). The fish seemed to have a real personality on that show. I guess they were just like any other fish, just swimming, but my memory seems to recall fish with some, almost dog-like, personality. Fish who, like all the children that tuned in to the program, would get excited at their own time with the main man himself.

Every generation complains about how the next generation doesn't have it as rough; how kids nowadays are soft because they don't have to go through the hardships we went through. I think the generation of kids that are just about to enter their TV watching stages is one generation that does not have it easier, for a generation without Mr. Rogers or Mr. Dressup is destined to be a generation lost, or at least more lost at TV time than we were.

"Co-op represents the world which you want to control. It is a manifestation of present civilization's rules and values..."

Will Good Marks Really Make You Happy?

Sandra Lê

4B Systems



Everybody knows that money does not bring happiness, but also that happiness is very difficult (almost not possible) without money. It recently came to my attention that the same thing might be true for marks at school too: it is very difficult to be happy with poor marks on midterms and exams or a failure, but obtaining high marks in academics doesn't necessarily bring happiness because of the sacrifices that had to be done to deserve the high marks.

Failure has a very negative meaning associated to it, and everybody knows that it is not fun to have poor marks because the society values excellency. If you get poor marks, it means that you probably didn't do the exercise right and/or didn't understand the material. There exists certainly many other people who did better, and having poor marks in an evaluation does not make you stick out of a group positively.

On the other hand, what will high marks will get you? Many academic rewards such as an unquestionable open door to graduate studies, to excellency scholarships and to undergraduate research assistantship positions. Also, you can obtain the pride to figure on the Dean's list, and the privilege to be invited to his term-dinner. All the honours usually go to the top students, and having good marks is a good way to work up the list.

I agree, these are very rewarding and are definitely worth working hard for. But one must also realise that they are also reserved to an elite of very smart and talented students. But what is the trade-off between very good marks and decent marks? I believe it is often happiness. At the end of the day, marks do matter, but I don't think it is all what will make a difference between two candidates postulating for the same job. In my opinion, creativity, open mind, self-confidence and personal experience are much more valuable assets than only academic excellency.

And what kind of trade-offs am I talking about? Actions on a more qualitative level such as personal satisfaction, good interpersonal relationships and life experience.

I think it is very important to feel good in what we are doing, a positive feeling of self-accomplishment, and I agree, many people find it in good marks. But I often see my friends, sadly, sacrificing valuable time with friends and occasions to develop themselves by creating a void around them, too busy studying and for striving to get good marks rather than paying attention to the community they live in. Often also, they don't even get back in the grading all the efforts they put in, and this is very disappointing and frustrating.

Most of us came to Waterloo with a résumé filled with extra-curricular activities and social achievements. Are we still doing all these things that were passionating us before? Most of the time, the efforts are concentrated on the studies, and activities such as volunteering, playing sports, participating in events or just chilling with friends are put aside for the benefit of a

few percents on a transcript. What if these activities are what make us really develop our personality and make us feel really happy, doesn't the quest for high marks then kill this happiness? Of course, it can be replaced temporarily by the pride of reaching the top 10 in an exam or a course, but I don't believe it can last as long as new friendships, discovery of the world or just the simple happiness of having a life outside of the school environment.

Of course, as an average student, I try to stay in the middle, enjoying myself at university (everybody says that these undergraduate years are the best of our life!) while working hard to deserve the marks that will get me where I want to go and feel proud of myself without any guilt of missing out on anything. And I know, this is what makes me happy.

Shadow Day

Jenelle Chen
1B Software

Last Wednesday, over 70 high school students from across Ontario turned up for Shadow Day. Shadow Day is designed especially for high school students interested in engineering to come check out what Waterloo's engineering is all about. Participants are partnered with an undergrad engineer, and are taken

around to lectures, shown the sites, and basically have their questions answered about the engineering discipline of their choice. According to one enthusiastic Shadow Day volunteer, "Shadow Day was a huge success, and I'd love to do it again next year!". So take it from your fellow engineer -- sign up for the next Shadow Day and show those high school kids what it's all about!

Charity Concerts

Michael McWilliam
3A Mechanical

Two charity concerts. Henry the first one is the one I'm holding at the Grad House. Both concerts all proceeds going to the food bank.

Concert 1

Thursday Mar 27 2003
At the Grad House
Show up before 10:00
By Donation to the Food Bank

Headlining are The SourKeys

Garage Rock band out of Waterloo. The band formed in 2001 and has already gained a strong following. If you like The Strokes and the White Stripes you will definitely love these guys. More info can be found at "<http://www25.brinkster.com/the-sourkeys/>" and demo songs can be downloaded at "http://artists.mp3s.com/artists/392/the_sour_keys.html".

The opening band is yet to be determined but don't be surprised if you see The Band from Planet X, Shift!, or Sibling Rivalry.

Open to Grad House members and their guests. No minors allowed.

Concert 2

Friday March 28 2003
At the Texas Bar-B-Q Grill
Show starts between 9-10pm
\$5 dollars with all proceeds going to the Food Bank

Headlining the Tessa Hoffman Project

Tessa Hoffman is 18 years old and she's has already established herself as an accomplished artist. She plays regularly at the Grad House and has just released her second album January 2003. Her band is melodic and highly talented. An 8 piece band with acoustic guitar, saxophone, drums to name a few.

The opening band yet to be determined. I guarantee you that they will be good.

Open to everyone except minors.

So You Like It Hard?

Laura McCracken

Turntables: 4
Mixers: 2
Watts: 4000

Friday March the 21st the fourth installment in the electronic music series, ElectOnica Near the MC, is bringing hardcore tunes to the SLC. What better way to celebrate the first day of spring than dancing your pants off to the best in house, trance, drum and bass, breaks, hardcore and techno?

::INFO::

Time: 4:00 pm – 3:00 am
Location: SLC::MPR (student life center, multipurpose room)
Cost: FREE
Dj's: 15

ElectOnica is a unique campus event where Dj's and live performers of electronic music from various University faculties show off their talent to fans of the genre. This term, 15 performers will be tearing it up on a selection from 4 turntables, 2 mixers and a variety of synth machines and keyboards. A 4000 watt sound system with dual 18" subs and powerful tops will be in effect along side some very cool lighting. You can be sure the music will be sweet and the times will be good and the decor will be funky so come and enjoy. As usual it is free and all are welcome to attend, or just drop by to check it out. Want more ? Check out www.electronicainthemc.org.

Come To Taleng

WEDNESDAY, MARCH 19
8:30 - MIDNIGHT
LOOSE CHANGE LOUIE'S

(Louie's is located on University Avenue between Phillip & Lester)

If you're looking for a great time, TalEng is the place to be on March 19. If you come, you'll see the BEST talent in Engineering including singing, instrumental ensembles, hip hop stepping, stand up comedy, and lots more. There's even a special extremely talented guest that will hopefully be a top candidate for the upcoming hit show Canadian Idol. TALENG is a show you definitely don't want to miss.

There will be lots of giveaways during the show, as well as random prizes. And the results from the EngSoc Exec nominations will be announced!!

This will be an ALL AGES event, so you can still come if you're under 19 (just be prepared to get big 'X's on your hands). Be sure to bring your ID if you want to avoid getting 'X's on your hands.

Start spreading the word to all of your friends.

If you have any questions, e-mail Karim (klallani@uwaterloo.ca)

Your Campus**Waterloo GNCTR Team Competes in Edmonton**

Daniel Martis
4B Civil

Fourteen students from Waterloo's 4B Civil Engineering class recently competed in the annual Great Northern Concrete Toboggan Race held in Edmonton, Alberta. Since its beginnings in 1974, the competition has gathered teams from universities across Canada and the United States to race five people down a hill on a concrete toboggan.

The rules of the competition stipulate that the toboggan must weigh less than 300 pounds (136.4kg), carry five passengers, have a concrete running surface, be

equipped with a roll-over frame to protect the occupants, and have a functional braking system to halt the speedy toboggan. Each team must also come up with a theme to their toboggan in addition to a technical report and display to showcase the construction of the sled. Our theme this year was 'Top Gun' after the 1986 movie starring Tom Cruise and Val Kilmer as Air Force Fighter Pilots. Each team member had a nickname after a character in the movie, including Viper (Mark Mollison), Maverick (Paul Ready), and Goose (Denis Viens). Our technical display was modeled as an aircraft hangar to store our 'Top Gun' toboggan.

Race day found us near the Muttart Conservatory in Edmonton, ready to send

our fattest men down a 500ft long slope. Chris Dixon, Shaun Fysh, Paul Ready, Mark Mollison and Greg McNally wore snowmobile helmets to protect their heads as they raced down the hill. Our unique two-slab design had 3 guys on the back and 2 in the front to reduce the chance of tipping over.

The first run down the hill started well, and it was looking like our toboggan was going to do well. It started to drift toward the side of the run, and resulted in dumping the 5 guys out of the toboggan onto the hill. No injuries, except to the toboggan, which lay in pieces on the hill.

We came together as a team, however, and managed to use our best ingenuity and

skills learned from watching MacGyver to put the toboggan back together. Bolts and a lot of duct tape got us down for another run, where we were able to deploy our pneumatically activated brake to stop the fat men from continuing further down the slope.

At the awards ceremony, we were awarded fifth place for our toboggan, including an award for best technical display. We somewhat happily drove the 3500km home to Waterloo with a phallic looking award, and a MacGyvered toboggan. We walked away cheering, though, our new team cheer:

"Olé, Olé, Olé, Olé, Fysh's mom, Fysh's mom....."

You may have heard us singing this catching tune lately in Engsoc meetings and in the halls.

The competition was a great time, as we met many great drunkards and competitors from other universities. Congratulations to The University of Manitoba for winning first place with their 1972 Summit Series theme. We'd also like to thank all our corporate sponsors, namely:

WEEF
Dept. of Civil Engineering
Faculty of Engineering
Sika Canada
PCL Constructors Canada
Aecon
EBA Engineering
Halsall Associates
PK Custom Homes

As well, thanks to those of you who bought our tasty boggan burgers every Thursday for the past eternity. Thank you, we hope you liked our cooking.



GNCTR Team from left to right:

Rosie Pareja, Tania Bortolon, Steve Krysa, Chris Black, Denis Viens, Mark Mollison, Paul Ready, Chris Dixon, Greg McNally, Maria Kyveris, Jolene Koch, Amy Kellestine, Dan Martis, Shaun Fysh.



Engineers Without Borders: Looking for a Few Good People

What is Engineers Without Borders?

Have you ever had the feeling that engineering is a profession with little positive social consequences? Have you ever felt vacant because our courses do not teach us how to 'make a difference' in the world? Engineers Without Borders (EWB) is here to change that. EWB is a team of exceptional engineers who are tak-

ing action on the global inequalities present in our current world. EWB members are actively pursuing the improvement of the quality of life for everyone around the world through implementation of environmentally and economically sustainable engineering projects.

At the University of Waterloo, EWB has a strong core and a large critical mass of members that are breaking down the borders of inequality locally and globally. In fact, EWB started at UW (est. 2000) and the energy and vibrancy of the team has caused EWB to spread to 21 universities across Canada (UBC, U of Alberta, etc.), the US (Cornell, UCLA, etc.), and around the world (Europe, Asia, etc.) The University of Waterloo chapter has focused on providing community awareness for the surrounding area, implementation of large-scale projects, and has sent several interns around the world to solve technology related problems.

What are we currently working on?

EWB has a strong focus on providing

practical low-tech solutions to socially complex problems.

The Waterloo Chapter has built a capacity to assist projects in the third world and provide direction for campus research initiatives. Over the past three years the chapter has guided several student-based project initiatives with some incorporating overseas placements. Learning from previous projects and internships, the chapter is building a Biosand Filtration Technology (BSF) with several objectives:

- Improve all aspects of BSF use in rural applications through research activities,
- Build a strong basis of BSF expertise through international internships involving the implementation of BSF programs,
- Provide solid and accessible technical and field support for BSF programs in developing communities, and
- Employ the project as a means for cross-cultural exchange and a vehicle for social entrepreneurship.

The group already has been successful in providing technical support to a colleague in Uganda and a project team at Concordia University. The current expertise consists of dedicated science and engineering grad-

uate and undergraduate students with a broad range of international development, technical, and organizational experience. Currently the group is organizing internships, facilitating workshops, attaining laboratory space and equipment, and recruiting faculty to advise the team's approach to fulfilling their objectives.

Volunteers Wanted!

EWB is currently looking for qualified volunteers. If you want to make a difference, become a member, come to a meeting, or contact an EWB executive. Volunteers can help manage chapter projects, go on internships, or provide general support.

Contact Information

EWB Waterloo
<http://waterloo.ewb.ca/>
EWB Canada
<http://www.ewb.ca/>



Co-operative Education and Career Services Announces the 2002 UW Co-op Students of the Year

Co-operative Education & Career Services

FOR IMMEDIATE RELEASE

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Waterloo, ON – March 5, 2003 -- Co-operative Education & Career Services at the University of Waterloo is pleased to announce the 2002 UW Co-op Students of the Year. Sylvia Ng, 3B Systems Design Engineering and Scott Griffiths, 4B Systems Design Engineering were selected as UW's top two co-op students of the year. The two students received a recognition plaque and a gift certificate for use in UW Retail Services outlets.

Scott Griffiths
Scott is a capable student who receives excellent marks in his academic studies at UW. Professor Ed Jernigan of the Engineering faculty writes, "[Scott] is a

natural leader, inspiring others to do their best by his own example, his intrinsic good nature and sense of humor."

Scott's co-op work terms have been rather varied. Most recently he filled a volunteer position with Habitat for Humanity Canada as a Technical Resource Planner developing project management materials for all Canadian housing construction sites and analyzing opportunities for workers' compensation for construction volunteers in all provinces. Scott also spent a four-

month work term in Guinea as an Assistant Civil Engineer for the Canadian Centre for International Studies and Co-operation. Scott was recently highlighted on CBC radio's local morning program with regards to his time spent in Africa. For his efforts at his various co-op jobs, Scott has received many excellent evaluations, as well as one outstanding for the work he did

as a Research Assistant at the University of Waterloo.

Active within the community, Scott has recently orchestrated a national conference here at the University of Waterloo put on by Engineers Without Borders, with which he has been highly involved since January



Receiving congratulations from CECS Director, Burce Lumsden are the 2002 UW Co-op Students of the Year, Scott Griffiths (left) and Sylvia Ng, (right).

of 2000. Scott was also Treasurer for the Harvard Model United Nations Team from January through April 2000. In December 2002, Scott was awarded the University of Waterloo President's Circle Award

for Volunteerism, and was featured in the Kitchener Record for this achievement.

Sylvia Ng
Sylvia is an outstanding student who receives top marks in all of her classes. She has been the recipient of numerous academic awards, including most recently the J.R. Coutts Engineers Without Borders

Award in Fall 2002, as well as achieving Dean's Honours List standing from Fall 1999 through 2002. In 1999, Sylvia also received the CFCH Youth Achievement and Distinction Award.

Throughout her co-op experience, Sylvia has continually impressed her various employers, receiving three outstanding evaluations along with two excellent evaluations. Her most recent work term, working for Exco Extrusion Dies in Markham, ON proved to be a fantastic experience; Sylvia successfully improved product lead time by performing on-site studies and presenting recommendations to management on a monthly basis.

Aside from her academic and work-term accomplishments, Sylvia is also an active member of the community. From Fall 2000 through the present, Sylvia has been the Team Leader of the Canadian Undergraduate Technology Conference. Her responsibilities in this position include running events and bringing speakers and delegates to the conference. She is also a Virtual Volunteer for the Foundation for the Global Advancement of Technology, in which she assists in the creation of a Web site for literacy promotion in Camden, New Jersey. Sylvia is also an active member of Engineers Without Borders.

Aside Hockey, Football! Time for World Cup Cricket!

Ruchi Bhalla
1B Software

On February 8th, for the first time in history, three African countries, South Africa, Zimbabwe and Kenya, joined forces to host World Cup Cricket, one of the biggest tournaments in the world. With more than 1 billion fans all around the world, cricket is indeed the second most watched sport in the world.

If you are one of those people who dismissed it as a baseball wannabe because it involves a bat and a ball, well, I've got news for you! You are missing out on the time of your life because all the other sports fall short when compared to this "gentleman's sport". Cricket involves maintaining a delicate balance between strategy, stamina and performance under pressure and politics. If you can't handle three 8 hour matches in one week, it's time for you to pack your bags and sign up for badminton. Anything and everything is possible in this game.

Canada in World Cup

Yep, Canada has a cricket team and not only, did they qualify for the world cup, they now hold four records in cricket's record books. They scored their first surprising win in the opener match against Bangladesh. This is Bangladesh's second world cup. However, the Canadians lost the rest of their matches and thus, didn't make it to the next round, super sixes.

They made it in cricket history for scoring the lowest total ever, in a world cup. Achieving a total of mere 36 runs against Sri Lanka, the Lankans finished off the game in about half an hour.

Canadian batsman, John Davison, holds the world record of scoring the fastest century in the history of World Cup, knocking 100 runs off only 67 balls against West Indies. West Indies defeated Canada by 7 wickets. (ouch, but good job, Davison!). He is also on the list for scoring the third fastest half century in the world cup, while playing the Kiwis. He hit 50 runs off only 25 balls. Moving on to an impressive score of 60 runs off 37 balls, he hit four massive sixes, the last one landing the ball in the parking lot.

Another Canadian batsman, Ishwar Maraj, holds the world record for scoring the slowest half century ever in the world cup, against South Africa. He finally crossed the crease and score 50 runs after playing 155 balls.

Oldest Rivalry

India and Pakistan share the honour of being the oldest arch rivals in cricket. Their match was the only one sold out a month before world cup. Over 22,000 spectators attended the game, filling the stadium to its maximum capacity. About 100 million people followed it on the Internet and television. Day before the match, South African airlines had to arrange for an extra half a dozen charter planes to transport ardent fans from the subcontinent.

In India, the day of the match was declared as a public holiday! Furthermore, several villages that experienced frequent electricity failures sent a petition to the government saying that there should be no electricity blackouts during the world cup. Movie releases and most of the weddings were postponed. Fans kept both stones and firecrackers in stock, depending on which one they would need! Being devoted

Indian supporters, my father, my sister and I watched the match live on pay per view for \$30 (from 2:45 am to 11:30 am). As well, in Village 1, about fifty people watched the live match, in one of the TV lounges. Oh and India won the match with little sweat maintaining their continuous winning streak against Pakistan in past world cups. What a sweet win!

Crazy Fans

Following India's bare win against the Dutch and the humiliating loss against the Aussies, disappointed fans took to the streets. They carried out mock funerals of the Indian captain, stoned one of the player's home and painted another player's house black!

However, the Indian fans did a double take following the wins against the Zimbabwe, England and Pakistan. They are now hailing Sourav Ganguly, the Indian skipper, as the best captain! Let's see how long that lasts.

An Indian couple, scheduled to marry on the same day as India were to play Zimbabwe, had to take extra measures to ensure the presence of their relatives and friends. Two big screen televisions were installed for the fans to enjoy the matches while the couple exchanged vows. The wedding cards had the ICC (International Cricket Council) World Cup trophy printed on the cover. The menu for the dinner included a salad depicting a cricket field. Cricket fans enjoyed good food as well as a good win!

On the other side, Pakistani players are now facing a probe. They will be interviewed by their cricket board when they return home to determine the causes behind their worst world cup performance so far. In the past, angry fans have been known to "welcome" their teams with

tomatoes and insults.

Here are some cricket tidbits:

- Every four years, two or more nations host the World Cup Cricket.
- No host nation has ever won the world cup.
- For '03 (current) world cup, the host, South Africans, did not qualify for the super sixes. (They are out!)
- Australians are the current cup defenders after they scored a comfortable win against Pakistan in the final of the '99 world cup in England. They beat Pak by 8 wickets.
- Aussies are the current favourites, and remain unbeaten so far in the tournament.
- Teams playing in the 03 world cup: Australia, Bangladesh, Canada, England, Holland, India, Kenya, Namibia, New Zealand, Pakistan, South Africa, Sri Lanka, West Indies, Zimbabwe.
- Kenya qualified for the super sixes after beating Canada, Bangladesh and Sri Lanka, the biggest upset victory in the tournament so far. Kenyans, who do not even have test status, played brilliantly and stopped the winning streak of the '96 world champions. This outcome was as unbelievable as France's loss to Senegal in world cup soccer.
- Qualifying teams for 03 super sixes: Australia, Sri Lanka, India, Kenya, New Zealand and Zimbabwe. Following super sixes, there will be quarter finals, semi finals and then the final!

References

1. ICC World Cup official website, www.cricketworldcup.com
2. Sify Sports news, www.khel.com
3. Ananova Sports, www.ananova.com/sport/cricket/index.html?menu=sport.cricket <picture>John Davison, aiming for a shot against Kiwis at Willowmoore Park.

Your Campus

Flashback at Women in Technology Night

Afsheen Khan
2A Chemical

On February 27 from 4:30-6:30pm in the DC Fishbowl (DC 1301) the Women In Engineering (WIE) and Mathematics (WIM) committee hosted a Women In Technology Night. Guest speakers included Diane McKelvie from Co-op services talked about Sexual Harassment and the protocol for the co-op student in dealing with it. She explained the definition of sexual Harassment as an "unwanted attention of a sexual gender related nature (verbal, nonverbal, physical)-jokes, touching, suggestive remarks, leering, or demands for sexual favours, threats, etc. In contravention of UW Policy and the Ontario human Rights Code; UW takes sexual harassment seriously for further information regarding the university policy and the OHRC, check out web site: <http://www.adm.uwaterloo.ca/infoebhr/>. She went over the possibilities where it can occur such as class rooms, residence, athletics facilities, part-time job, co-op work term or anywhere else. It creates an unpleasant environment and affect one's study, work, or well being leaving one powerless, hurt, uncomfortable, or afraid. She went through several examples of sexual harassment. One being asked out repeatedly after the offer being turned down, or the work term supervisor continually brushes up against you, getting x-

rated email messages making one reluctant to log on to one's account, or being teased and hassled by residing students for being gay. Diane went through the several ways one can seek help with out self reproach or ignoring of one's feelings such happenings should be recorded and documented if they occur repetitively, someone trusted like a friends, parents, don, or some one on campus should be contacted. One can also learn more by contacting Ontario Human Rights Commission at 1-800-387-9080 or if one concerned about one's personal safety can reach the UW police at 519-888-4911. She also gave out handouts with contacts of the people available on campus for assistance.

Karen Cartmell a speaker from WIM spoke about "Balancing a Successful Career with Family Life" she set herself as an example of a working women with a family and spoke under the light of her own personal experience as a Women In Technology. She went through the Top ten Tips for Balancing a Successful Career with Family Life, which are as follows:

1. Be Organized
 - Day timer
 - Work & Family intermingled
2. Good Planning
 - Summer Vacation Scheduled for kids
 - Double up on tasks
 - Sunday's leftovers are Monday's dinners

3. Be Flexible
 - Flexible working hours
 - Holiday Plans
4. Set Priorities
 - Expect them to change
 - Don't try to do everything
 - Pick your Passions
5. Determine what is Important
 - To you, to your spouse
 - Location of work
 - Triple Constraint: time, money, and quality/goal
6. Build a Support Network
 - Grandparents
 - Neighbours/ Friends
7. Deal with Guilt
 - Other people's values
 - School activities/ Sick Child
 - Forgive yourself
8. Everyone do their Share
 - Household tasks: "60/40" rule for both
 - Responsible Kids
 - Respect for each other
9. Create Time for yourself
 - Professional Development
 - Daily - Exercise
10. Develop Family Rituals
 - Regular Meal Routine
 - Travel for Work
 - Involvement of kids in decisions

Catherine Philips, alumni, who graduated in the year 2001, as an electrical engineer, enlightened the audience with her perspective of "Finding Success". She also spoke from her personal experience both as a

female student in engineering and now a woman in work force of technology. She emphasized that one should find one's interest first, get into the field of one's interest, and should get along from there making one's future career by finding a related, but flexible job.

Last but not least another speaker from WIM spoke about majors and how she changed her majors as a student herself to get the one of her interest and then get along with her life successfully. The last three speakers emphasized the importance of personal interest in certain things and how that can mould one's life and choice of career and bring success and satisfaction in all that one does in life.

All the speakers enlightened the bunch of UW under grads and grads that showed their interest and came to attend the event making it a success. All the tips given were really helpful to make one a successful as a women in work force. Women In Engineering Committee co-chair Prof. Susan Tighe showed her encouragement and acknowledgement by joining us in the night, despite her busy schedule. It turned out to be a lively, informative night and many women and girls in technology left with their mind more focussed to direct themselves in the right way or according to the speakers the way of their own interest and choice.



Explorations a Great Success!

Jonathan Ng

4B Computer

Hi! Explorations was this Monday, March 10th. It's a big day where many, many kids Grade 6-8 come over and see what University of Waterloo Engineering has to offer them. There are many exhibits, including Liquid Nitrogen Ice Cream, Fire Fighting Robots and other amazing projects. Many of them are graduate and fourth year design projects.

There was initially a large amount of

chaos, but it got under control, with the help of our volunteers and rovers. Then afterwards, everything ran pretty much smoothly.

We also opened up a barbecue to raise money for the Food Bank. We made around \$200 dollars on behalf of the Food Bank, plus the leftover food that we couldn't finish cooking. All in all, a very good effort.

Thanks goes to all the people who volunteered, and the rovers, and especially Steph Purnell, who braved the cold all night to cook barbecue buns.

I hope to see you again next year!



From top to bottom, left to right: Robotic Foosball, Liquid Nitrogen Ice Cream, Formula SAE, Pounce

Tuition and Your Diploma - This Question Worth 15%

Dan Robinson



3B Systems

All of us in engineering have to face it. Our next fee statement will be over \$4000. Tuition itself will be roughly \$3400 which works out to about 20\$ an hour of class. Think about that next time you skip your 8:30.

Engineering undergrads at Waterloo paid \$5286 [1] tuition in the year 2002-2003. That is third highest in the province, beaten only by Toronto (\$5789) and Queen's (\$6260). However, when you start tacking on mandatory \$425 co-op fees, we are really not that far behind. Especially considering we now get academic credit for co-op so it might as well be considered tuition. Nationally, an "average" engineering undergrad in Canada paid \$3880 for a year of schooling. Nova Scotia and Ontario were the most expensive, with Quebec and British Columbia being the

cheapest. See table 1 for complete details [1].

So what gives? Why do full time engineering undergrads in Montreal pay \$1668 while those in Ottawa pay \$4481? And why do we keep being bled for 15% when banks are demanding about 8% for a 10 year mortgage? The answer started with the NDP and festered under Mike Harris. The province of Ontario has stopped supporting education to the level it had in the past.

In 1991-92, Ontario student tuition accounted for 22% [2] of a university's operating revenue. As shown in figure 1, in 2000-01, this number had climbed to 41% [2] nationally and 44% [2] in Waterloo's case. This number has only grown since then. Between 1995 and 2001,

Share of tuition in Ontario universities' operating revenue, 1991-2 to 2000-1

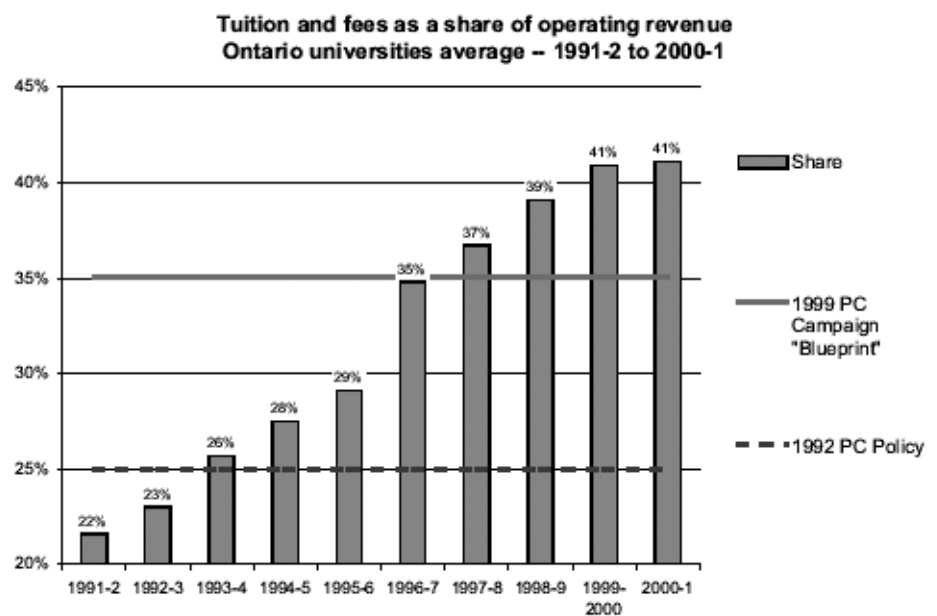


Figure 1: % of University Operating Costs Paid By Tuition [2]

the 11 Ontario universities with over 10,000 students lost \$324 million in provincial support, \$31 million of that cut from Waterloo [2]. This works out to

between \$1500 and \$2000 per student for major Ontario universities. Notice the identical parallel between the amount cut by government and the amount tuition has increased - between 1995 and 2001 tuition jumped \$1748 per student at UW.

tuition much longer. This is where the challenge lies. As the future upper-middle class of Ontario society it is up to us to make education an issue and a priority. It is up to us to vote to pay higher taxes so that we can have good schools, a strong military, a healthy population and nice roads to drive our nice cars on.

I also challenge the University administration. A portion of the financial burden on this school could be offset by alumni donations. I, like many students I have talked to, do not intend to contribute to the University after I graduate. We have been left with a sour taste in our mouths. The university life and spirit is pitiful at UW, especially in engineering. I believe a large portion of this is due to irrational administrative demands regarding words such as scunt and beer, frosh week regulations, and incredibly strict, military style proceedings in Electrical Engineering, to name a few. If students are not allowed to enjoy themselves and are treated as children they will not feel like opening their pocketbooks after graduation. An alumni donation is like a tip, a thank-you for service above and beyond. To continue my analogy, I have gotten my food delivered warm, not hot. It was busily slammed on my table, and I was quickly shoved through the door to make room for the next customer. The waitress didn't even smile; to her I am table 99006199. I am not leaving a tip.

References:

- [1] - Statistics Canada report on University Tuition Fees For Full-Time Canadian Students, 2002-2003.
- [2] - Mackenzie, H. and Rosenfel, M., "University Funding Cuts: Shortchanging Ontario Students. ISBN: 0-88627-292-0. Canadian Centre for Policy Alternatives, April 2002.

Figure 1: % of University Operating Costs Paid By Tuition [2]

So why do we, as students, have to pay? University administrations have been put in "position impossible". They have three choices: let the quality of the faculty and facilities decline due to lack of funding, sell-out to private corporations or demand more tuition from students. We all know the fiasco surrounding the support from Microsoft and C# that occurred in the not too distant past and none of us, past alumni included, want to see the value of a Waterloo education drop. So where does that leave us? Soon tuition will climb too high, and become inaccessible to some, regardless of co-op. Basically, the Ontario government (which is freely elected by the citizens of Ontario), has allowed the accessibility and independence of post secondary institutions to become threatened. This is a major problem, especially considering Canada's belief that to succeed in the future economic market a skilled, highly educated workforce is crucial.

Soon I, like many of you, will be passing from these halls, with an iron ring balancing on the small finger of my right hand. I will not be forced to bear the brunt of differential

UNIVERSITY TUITION FEES FOR FULL-TIME CANADIAN STUDENTS 2002-2003 (Modified)	Engineering Génie	
	Lower Inférieur \$	Upper Supérieur \$
Newfoundland - Terre-Neuve		
Memorial University of Newfoundland	2,670	3,204
Prince Edward Island - Île-du-Prince-Édouard		
Prince Edward Island, University of (2)	4,257	
Nova Scotia - Nouvelle-Écosse		
Acadia University (3)	6,584	
Cape Breton, University College of	4,570	
Dalhousie University	5,520	5,670
St. Francis Xavier University	4,940	
Saint Mary's University	5,228	5,583
New Brunswick - Nouveau-Brunswick		
Moncton, Université de	3,820	
New Brunswick, University of	4,265	
Quebec - Québec (7)		
Concordia University	1,668	4,013
Laval, Université	1,668	4,012
McGill University	1,668	4,013
Montréal, Université de		
École Polytechnique	1,710	4,054
Québec, Université de	1,668	3,858
Sherbrooke, Université de	1,668	3,858
Ontario		
Carleton University (11)	4,948	
Guelph, University of (12)	4,460	
Lakehead University	4,325	
Laurentian University - Université Laurentienne	4,456	
McMaster University	4,416	4,796
Ottawa, University of - Ottawa, Université de (13)	4,481	5,000
Queen's University	6,260	
Ryerson Polytechnic University	4,530	5,810
Toronto, University of (14)	5,789	6,250
Trent University	4,106	
WATERLOO, University of	5,286	
Western Ontario, University of	5,210	
Windsor, University of (15)	4,520	
York University	4,106	
Manitoba		
Manitoba, University, of (18)	4,077	
Saskatchewan		
Regina, University of (20)	3,585	
Saskatchewan, University of	5,058	
Alberta		
Alberta, University of (22)	4,032	4,300
Calgary, University of	4,944	
DeVry Institute of Technology-Calgary	8,830	8,980
British Columbia - Colombie-Britannique		
British Columbia, University of	2,661	
Simon Fraser University	3,329	4,565
Victoria, University of	3,169	

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