

# the IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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Check us out @ <http://iwarrior.uwaterloo.ca/>

## Build your own air conditioner!



WEEF TA Geoff Milburn poses with his \$25 air conditioner which has brought him both fame and fortune.



DAVID YIP  
EDITOR-IN-CHIEF

Summer in school. When confronted with this harsh, hot, reality, outsiders often offer us a withering look of pity, coupled with the requisite “That sucks.”

Suck it certainly does; as if being cooped up indoors during the sexiest of seasons wasn’t enough, many of us, stuck in student quarters, do not enjoy the benefits that people living in real homes do, namely: Air conditioning.

We Ontarians are a tough crowd, complaining about the cold in the winter, and whining about “heat waves” when it gets hotter than 30 degrees. Resident WEEF TA Geoff Milburn has decided to do something about it, constructing an air conditioner for less than \$30, that “cools a average room from 30°C to maybe 22°C”.

For \$30 it obviously doesn’t have a refrigeration cycle, rather it is a simple heat exchanger, using a fan to blow warm air across copper tubes filled with cold water. The cold water absorbs the heat in the air, and is carried away. It took Geoff about an hour to build, with copper coil, zip ties, a bucket, and a fan.

What started as a random build-something project has turned into a bit of an entertaining publicity ride for our intrepid first year idol.

The story begins begin at Slashdot, the infamous tech blog, known for its ridiculously large comment threads and holy wars. Posted on Slashdot on June 13th, it has attracted 832 comments so far, some complimentary, some not.

The first surprise came when National Public Radio, a nonprofit nationwide radio

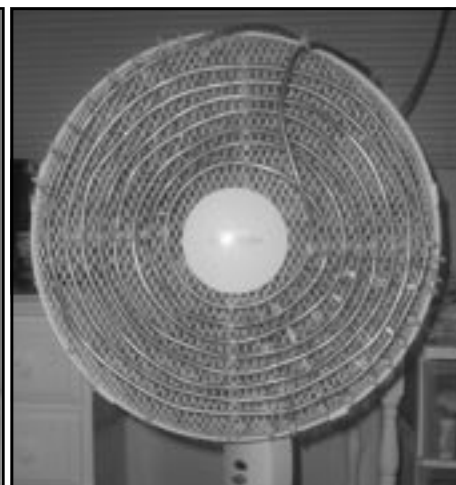
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***“You have a brilliant career in engineering ahead of you!”***

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network in the US contacted Geoff for an interview. It aired on the June 18th Weekend Edition of NPR, broadcasted all over the United States. Geoff spoke to award winning host Scott Simon about his cooler. In it, Simon says “Mr Milburn, I must say it sounds like you have a brilliant career in engineering ahead of you... And stay cool this summer.”

The Iron Warrior ambled over to the WEEF office to get Geoff’s comments on his newfound fame. Sadly lacking in audio



recording technology, all quotations made by Geoff and I are actually going to be mere paraphrases.

IW: National Public Radio eh? That’s quite something. What was the interview like?

GM: Well, it was a phone interview. They had me speak for about a minute about anything, and then a minute of silence so the sound engineers could set up their equipment.

IW: So was it live or recorded?

GM: Oh, recorded. Much less pressure that way – several times during the interview I thought to myself: “I hope they edit that out!”, and was pretty happy when they did.

IW: You hosted the page detailing your project on [www.eng](http://www.eng). Have you taken any flak from Engineering Computing about the massive traffic that a Slashdot post brings?

GM: Actually yea, they sent me something that looked like a form letter about how they were removing my image links,

*Continued on page 4, see Fame*

## Time to push back

JOSH BRUCE  
3A MECHANICAL

I am writing this article in an effort to convince engineering students here at UW to push the school back after they have pushed us so much. My problem, which is also the problem of my 3A mechanical class, and a Chem class from what I hear, is our final exam schedule. For us, the original plan was to write 2 exams in a row, then 3 exams in a row after the weekend. The Chems I hear had a similar scenario. We as a class were told that this schedule was unchangeable, and that we would have to live with it. I don’t know about the rest of you, but I can only be pushed around so much before I get tired of it and push back. Luckily the rest of my class felt the same.

After a meeting I attended with our class rep with the registrar of the university, it became clear to me why things couldn’t be changed... No human has looked at exam conflicts, space availability etc because it is a computer algorithm that generates all of the schedules. Well, after a long and annoying battle, myself and my class rep succeeded, and with the co-operation of one of our profs and the whole class, we are in the process of getting our schedule changed to something more reasonable. This is only a small victory though because this is a battle that will have to be fought every semester from now on if things stay the same.

This is where you come in. If you have been screwed by a shitty exam schedule, it is up to you to do something about it. If you haven’t been screwed yet, bend over, it’ll be coming soon. In other words, if you haven’t had this happen to you yet, it will happen in semesters to come, so take action and prevent it before it happens.

A little background: the University of Waterloo Senate has decided across the board that exams will be 2.5 hrs long instead of 3. Don’t for a second think that this is to relieve stress on you the student, or to get you out early to enjoy life, this is a move to save big money as they save a half hour of proctor pay per exam. This is also so they could have four exam slots per day as opposed to three. You are no doubt familiar with the “benefits” of this if you read your engmail. These e-mails seem to me like a P.R. campaign designed to convince us that our best interest is in mind with these changes. This kind of reminds me of Fox News or CNN launching multi-million dollar campaigns to convince people that they are objective and reputable.

*Continued on page 5, see Pushed*

## A two-part editorial



DAVID YIP  
EDITOR-IN-CHIEF

### Part one: Sanitation

In other publications circulating around engineering, it's been griped that the Iron Warrior is too sanitized, and that events that should have been promoted haven't been promoted. The answer is pretty simple. The Iron Warrior is an official Society paper. If events are official Society events, they will get promoted. Otherwise there are alternative ways of advertising. If it's felt that IW is sanitized, it's because the Society is sanitized, and that has very little to do with this newspaper.

This sort of highlights the larger conflict between traditions and political correctness that has been going on for a while. It's been subject to discussion many times, especially in the context of frosh week. UT maintains a site detailing their traditions: traditions.skule.ca. What are our traditions? Thoughts? Send 'em in.

### Part two: Africa

Anyway the other part of this is on Africa. Everyone knows about Africa through one way or another. In a way it's always in our collective consciousness, be it through footage of malnourished children on World Vision, the latest super virus, war, coup, or whatever. Tony Blair called it "a scar on the conscience of the world", indicating that we must do something to help. Not that we haven't been trying before. Over the past forty years over 500 billion dollars has been transferred to African countries in foreign aid. That's enough for about fifty nuclear aircraft carriers. Yet Africa is getting worse, not better. There's a saying that suggests that repeating the same action with the expectation of different consequences is a sign of insanity.

Campaigners for Live8 called for three things: More and better aid, trade justice, and cancelling debt. Of these, "More and better aid" should attract the most scrutiny. Aid is always measured in dollars, but

rarely suffixed by the form that that aid takes - yet that is perhaps more important than the dollar value. In thermodynamics we are taught to value the importance of not just the quantity of energy, but its quality as well.

It pretty much seems to me that the quality is lacking. We promise more aid and more aid, but due to ineffective governments, direct cash transfers tend to be squandered, and furthermore - create a culture of dependency, leading governments to avoid their standard governmental responsibilities. For example, governments have been known to neglect tax collection and start wars with the breathing room that foreign aid allows them. Reliance on foreign aid allows countries to ignore the true engines of wealth generation, local entrepreneurs and businesses.

Much has also been said about the negative impact that decades of colonialism and exploitation has had on Africa's development. But it can be argued that when so much of a given government's budget is in the hands of foreign creditors, it seems like just another form of colonialism.

In response to the squandering of aid, donor countries did two things. In the late 1990s donor countries reduced their contributions sharply. This of course did not make things better. It also became trendy to attach conditions to aid, such as free-market reforms, good ol' democracy, et cetera, in the hope that this will improve the situation. These conditions are generally penned by bodies such as the International Monetary Fund, and the World Bank. Note that none of these institutions are African, and yet they seem to know what works best for Africa. Truth is, democratic institutions tend to come from the ground up, and market reforms work in concert with the development of businesses. Unwise economic choices that otherwise would not have been made, such as the privatisation of public utilities, are made to appease donor bodies. Africa also tends to have a very diverse population of different ethnic groups, and forcing the construction of democratic structures is not likely to work well, as they will be unadapted to local cultures. Forced democracies are also prone to intimidation, bribery, and general riggery of elections.

In short, the problem with government to government aid is that governments listen to the source of their income. With massive foreign aid, governments listen to foreign countries, and not their people and the businesses they create.

The second point, trade justice only works when countries have products to trade, and products come from businesses. If the local government is too busy trying to score donor money, they will not invest in the physical and financial infrastructure to support business and entrepreneurship. Without local business, the most liberal fair trade rules are useless.

The last point, cancelling the debt, is superficially the most simple, though it also raises many questions. While we pat ourselves on the back for being so magnanimous, doesn't cancelling the debt also breed a culture of irresponsibility? In Uganda, radio journalist Andrew Mwenda notes that Uganda went on another borrowing spree, and invaded a country after their debt was forgiven in 1998.

What are the answers? Africa undoubtedly needs help, but intelligent, enlightened help. "More and better aid" is certainly a worthy goal, but it is the "better" that will generate the most controversy. What is better aid and what form should it take? Lord May of Oxford, President of the Royal Society said: "An increase in aid for Africa must have the long-term goal of helping Africans to help themselves."

I would agree with this whole-heartedly, as I'm sure many of us would. Long term. That requires long-term commitment, likely longer term than the terms of many politicians. Perhaps a longer term than this lifetime. Not only must we commit to helping out for the next five or ten years - it could take far longer than that. It is therefore important that coming generations in prosperous countries be schooled in Africa's plight - beyond the old rhetoric of "They are starving, we must feed them." Locally, Engineers Without Borders has high school Outreach programs is making this a reality. People are always needed for that. Long term commitment is also needed by G8 leaders. I mean genuine concern over Africa, not just fire-and-forget promises of aid to appease voters and rock stars.

## IRON WARRIOR

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# Rent-a-LowRider



**LOWRIDER**  
3A SYSTEMS

Dear Low-Liar,

I'm onto you. No one ever even writes you letters. Who would even consider wasting their precious time to write some ning-come-poop wearing a goofy red head piece? Like do you think you've added value to the lives of society by writing crap? The secret is out so HA.

With love,  
Weiner

Dear Big Fat Liar Liar with Pants on Fire,

Let me guess. Somebody pissed in your cornflakes this morning right? I knew it. You wrote a letter, so now you're a victim. Welcome to the club.

\_LR\_

Dear Dr. LowRider,

I have an extremely painful problem. I'm a U of T student and have a terrible case of hemorrhoids. I think it may have something to do with my obsessive desire to program for-loops and play dungeons and dragons till I'm blue in my face and have to change my diaper. My school is so crappy that they don't offer a hemorrhoid clinic. I've heard that not only are you

wonderful author of a fantastic novel in the Iron Warrior but also a butt specialist. Can you prescribe me a special preparation H for my roids?

Unabletosit Anymore

Dear Huggies,

I can't believe I'm publishing this crap. I almost vomited when my secretary read your letter to me this morning. The only condolence was that she had freshly dry-cleaned my BANDANA that morning. So fresh, so clean. Because I'm such a cool guy, I'll give you advice on any topic you could ever imagine (with the exception of hemorrhoids). Sounds good? Ok. Now go grab a fresh diaper and go to town.

\_LR\_

Dear \_LR\_,

There is a rumor spreading on the Waterloo campus. A friend of a friend who's uncle dated my sister's grandma's uncle's father-in-law who once upon a time drove a tractor naked in a corn field told me that you're leaving us temporarily. Who is going to ensure that the Iron Warrior actually contains something worth reading and lighten up Engineering with stupid witty remarks and off color comments not to mention those sentences that never seem to stop? And what are you going to do with that phenomenal Volkswagen of yours? Can I touch it?

Sincerely,

Concerned LowReader

LowReader,

There is no need to fear, LowRider is here. That was horrible poetry. I can't believe I just wrote a rhyme in this bloody article. Next issue I'll be writing freakin' Haikus for goodness' sake. I'm a poet and I don't know it. Terrible. Someone needs to put me out of my misery. This job is so stressful that I need a sabbatical so I can drive Impala's riding on hydros in Cali with my bros. I need a holiday. Simple and plain.

The rumors are true my dear LowReader. I am leaving this continent for a few to go back to the old country. I will still be running the campus as usual though so there is nothing to worry about.

LowRider's ride will be stored in a climate controlled, concrete bunker where robots with light sabers and chipmunks with machine guns will guard it at all times and all costs. That is unless you want to rent it. Get in touch if you're interested and I'll start the screening process beginning with some simple DNA testing.

\_LR\_

Dear LowRider,

I'm feeling very down on myself today. I just got my ass handed to me in a paper bag by my professors on every single one of my midterms. I'm considering dropping out of UW's superior engineering program and enrolling at that U of T place. I hear basket weaving is the future of Toronto and need in on that goodness. Wicker is just too cool for school man. Anyway, do you have any suggestions on how I can get my ass back from profs?

Frank Failure

Dear Dood,

It's okay buddy. It'll all work out. If you ask your prof's politely enough I'm sure they will give you some of it back. But they'll always kick your ass in the end of the day. Welcome to the school of engineering. Enjoy your stay.

'till next time keep it low kids.

Have a problem? Need advice?  
Email LowRider at  
uw\_lowrider@hotmail.com



Smooth.

# POETS PATIO



# PORK PYRE

Saturday July 16th  
7.00pm @ Poets

Tickets entitle you to all you can eat pork from a freshly roasted pig!

Tickets  
\$20 at the door  
\$15 until July 15th

BEVERages and women will be there...

# Mechs & Elecs ambush Civils : Victims unfazed

**HALEY VAN POORTEN**  
4A CIVIL

On Tuesday June 28, at 5:15pm, all 4th year on-stream engineers gathered outside poets, in CPH, awaiting their class photos. It was cruel fate that 5 days of dry weather was broken by rain at 5pm that day. The photo was to be completed outside, so the question was, "Is the photo still on?"

The class photos were on a first-come-first-serve basis, based on which class had the highest percentage present. I cannot say for sure which class that would be, but we all vied for the front of the line as the thunder and lightning threatened further rain.

All classes assembled outside, waiting their turn. As I stood out in the open, all shelter taken by other classes, I wondered about the rumour that the Civils were to go last. "Why is that? It's obviously not in alphabetical order if the Elecs were first."

The thunder and lightning got closer, the light rain continued, and we continued to wonder when our turn would come. It became obvious that we were going to be

last as other classes pushed to go next.

Finally, we were on the patio steps. As we squished in for the photo, large drops of rain began to fall for the climax of the storm. We petitioned the photographer to hasten his job. As this occurred, and he finished his arrangement of my classmates, I wondered why someone was filming our photo. About 10 seconds later my ques-

**"Better luck next time!"**

tion was answered. Something red flew over my class, along with extremely large drops of rain. It wasn't just raining from clouds, it was raining water balloons from balconies all around. It was an ambush! We ran for it!

I would like to point out at this point how lucky the Mech and Elec classes are that they did not hit a particular member of our class. One of our classmates has a 3-month-old baby, who was a guest of honour in the picture. If that baby had been hit by a balloon or bucket of water

our entire class would have been on top of the attackers immediately, with extreme vengeance. But as it turns out, the mother had been quick enough to cover her child, and seek safety.

Two positive aspects arose from this event. First, it wasn't such a horrible attack as we were all getting soaked from the rain. Second, and this is key, we made a class event of the situation.

After the attack we slowly congregated in our Fourth-Year Study Room nearby. Here it was decided that, with the P\*\*5 cash winnings from last term, we would complete an Andre. Immediately, classmates went out to procure 6 cases of beer, one bottle of red wine, one bottle of white wine, and one bottle of champagne. We sat in our room consuming these beverages all evening, playing poker, euchre, and relaxing. This collection of liquor was completed in 4 hours among the 20-40 people remaining.

So, in attempting to humiliate our class, the Mechs and Elecs actually succeeded in creating a suitable atmosphere for further class socialization. Thanks folks. Better luck next time!



# Stay cool and acquire fame and fortune for a mere \$25

*Continued from cover.*

but at the bottom of the letter, Mike (from Computing) added a note on how it'd better get cooler soon.

IW: And emails, I guess you must be getting a ton of those.

GM: Not so much now, but yea, for a while I was getting about 50 a day – I'm around 5 per day now.

IW: Thank goodness for Gmail.

GM: Yea. I can barely keep up with the emails I've been getting.

IW: So what's in these emails?

GM: Well, most of them are from fellow tech-heads offering constructive advice, or plans of their own projects. Others are just general congratulatory comments, where some are just weird. There's one girl from Italy who asked me to "Send me more pictures of yourself."

IW: Doesn't help that you have those shirtless pictures of yourself then.

GM: Oh, that email was before those pictures. Besides my girlfriend took those.

IW: Any hate mail?

GM: No, not hate mail really, but a few emails from some intellectual wankers who are merely out to show off their technical knowledge by nitpicking my project. I mean their criticisms would be valid if I

were selling this thing or something, but I mean it was just meant to keep me cool on the cheap, not save the world. Also I've gotten some Slashdot flames, but I mean I can take those.

IW: Yea, it's just a fun project. If you can't take some Slashdot flames you shouldn't be posting on Slashdot.

GM: Exactly. Oh, I've also gotten some emails about dubious business opportunities, offering to submit my design to some patent agency for some random amount of money.

IW: Sounds sketchy. Now since the page's launch, you added some Google ads and a shameless plug promoting yourself for co-op. Any results from those?

GM: Actually yea, I think I've actually made enough from the Google ads to actually buy a real air conditioner, ironically enough. As far as co-op is concerned, it's been going quite well, I've been in contact with a few firms.

IW: Nice work! Now, after NPR, you were on CBC Metro Morning as well.

GM: Yep! When I came in that morning June Lowe pointed at me, and said "I heard you on the radio!"

IW: Were these recorded too?

GM: No. The live interviews were a bit more unnerving. I mean we've all had phone interviews in co-op, it's the same problem – you can't gauge the reaction to what you're saying. I guess from the initial questions you can sort of gauge what kind

of audience it is. I had this interview with a station called Border104, and it was a lot of fun – the DJs were your typical backslapping radio station jocks.

IW: The Kitchener-Waterloo Record picked up the story too, didn't it?

GM: Yep. The guy was pretty cool – you could tell he's been around the block, knows what questions to ask. They went to my place with a photographer and a bunch of lighting equipment with the umbrellas and such. They look like 800 pictures.

IW: Full photoshoot eh.

GM: Yep. They had me leaning on the fan and whatnot – "Okay, look here! Now tilt your head! Okay now look this way!" That was on a Friday – the story was on the front page Saturday!

IW: Whoa, sounds like fun. It's been quite an experience then.

GM: Yea, it has. Totally surprised me and surpassed my expectations, I mean it was just on Slashdot. But I must say, I can't complain.

IW: I wouldn't. Any further improvements to the system? A closed circuit maybe?

GM: It's funny, I was on the bus with my girlfriend, and I saw this refrigerator on the curb and thought "Condensing coils!" She looked at me and said "If you want to get off the bus and pick apart this refrigerator in front of someone's house, that's fine, I'll be at home." I don't have a pump, so I haven't made it a closed circuit

yet, but it uses about half-litre a minute, and it's only before I go to sleep.

IW: I see. Have you taken any performance measurements on it?

GM: I'm planning to when it gets hot again.

IW: I'm sure that won't take too long.

Geoff's contraption has been revised once since its initial construction with a fine mesh of copper wire to increase the heat exchanger area. The site also has some similar projects that others have tried.

Hear Geoff's NPR interview at: [www.npr.org/templates/story/story.php?storyId=4708562](http://www.npr.org/templates/story/story.php?storyId=4708562)

See the page that started it all: [www.eng.uwaterloo.ca/~gmilburn/ac](http://www.eng.uwaterloo.ca/~gmilburn/ac)



## Nanotech nonsense: FRANCIS HOPE cooks up a plan

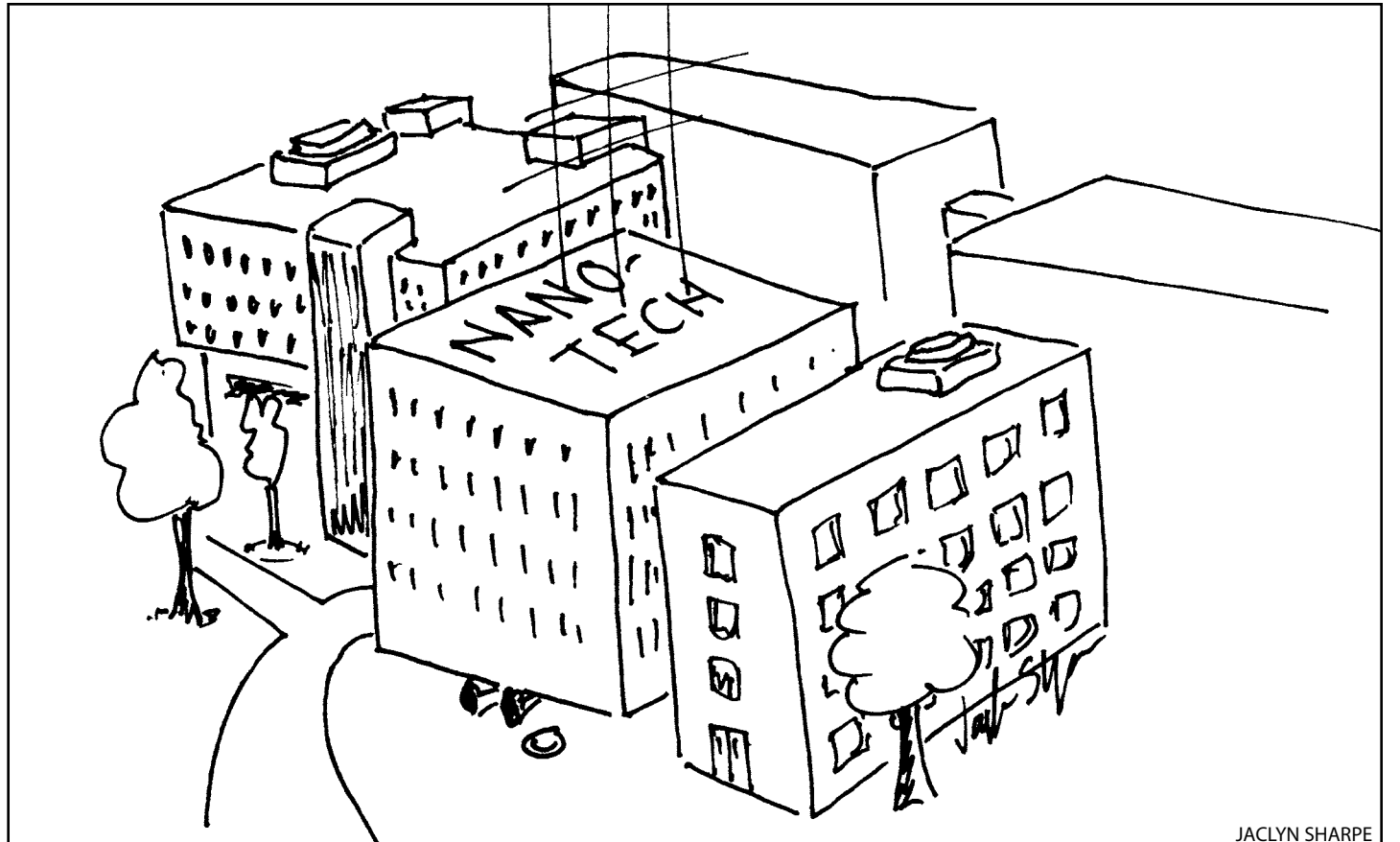


FRANCIS HOPE  
4A ELECTRICAL

Many of you who have been at Waterloo for a couple years may have noticed that buildings are popping up out of the ground like weeds in the last couple years. Like CEIT, and the buildings North of the Columbia Fields. Well, just like weeds some of these buildings seem to be unwanted or pop up in the worst of places.

For example, the new Nanotech building, which will be built to house the students who are going to be taking the new program. Why is it unwanted? Simple: one, it is going to house people who are soooo geeky that they are studying a program that has no application in the undergraduate level. Hell, they are even geekier than the Engineers and the Math students: the lepers of Waterloo if you will, the penultimate geek. Secondly, the building is being placed right in front of the SLC between the Biology 2. One of the most scenic areas of Waterloo when you are looking away from the math building (or the Fortress of Solitude as I have personally dubbed it). Unfortunately there are not many places you can put the building.

Waterloo is, after all, a centralized campus and although it may be tempting to put the building in Cambridge this is not practical. Fortunately, being a resourceful engineering student I think I may have found a solution. Now I need a civil engineer to check over my work and do the fine



JACLYN SHARPE

details like all the structural design and a P. Eng to stamp the drawing but here is my proposal. The MC is a fortress, designed to withstand a nuclear bomb. So since it is so sturdy, simply build on top of the building. The advantage of this proposal is that there is extra green space on campus, and keep the one of the nicer areas of the campus looking pretty. Let's face it: Waterloo does not have that much of an aesthetically pleasing ambience because of the grunge 70s architecture, the building that looks like a fortress (MC) and the building that looks like objects that no one

comprehend (Davis Center).

Another added feature is that MC will act as a buffer to keep the uber-geeks at bay. The reason for this is twofold. The existing building already pacifies the math students and keeps them contained with its thick walls and hallways that seem to go nowhere and are simply there to confuse and stupefy students and profs, and keeping the students in the building for days on end. Next, the math students will act as a buffer for the nano engineers from getting out. If the building MC had a resistance to geekiness R, then since the potential

difference V in geekiness is smaller since they are relatively the same level of geek then the geek current will be smaller. Hence less geekiness will come out of the building.  $V=IR$ . Okay, that was for the electrical engineers out there but you get the idea... kinda.

Anyways, that is my theory and I am sticking to it until a better one comes around. And any civil engineers that are up to the challenge of designing this new design contact me, maybe we can put in a proposal.

# Make Poverty History & Live8

RICHARD HUI  
2B CHEMICAL

On July 2nd, approximately two billion people saw (or at least heard about) the Live 8 concerts all over the world. In Barrie, many performances including Neil Young's "Keep Rocking in the Free World" to "Taking Care of Business" by Randy Bachman helped raised awareness of poverty issues in Africa. Three big reasons why there's new energy to solve this world problem are because of the G8 Summit (one down, two to go), UN General Assembly Special Summit on the Millennium Development Goals (<http://www.un.org/millenniumgoals/>), and the World Trade Organization 6th Ministerial Conference, which are all happening in 2005; it's time to let the movers and shakers of this world know that we care about...

1. Trade Justice. Trade justice is about poor nations being able to compete in the world markets and being empowered to implement their own subsidies. Richer countries can subsidize their own workers to produce goods that poorer countries have more ideal situations to produce. The current competition of China textiles vs. US textiles seems all fun and games, but for other countries, it's harder to survive in the international markets. People have noted that China, India, and Vietnam's economic prosperity started from their own policy reforms wherein the country began making money, not just receiving aid.

2. Cancelling the Debt. What happens if your money output is greater than your input? For example, the poorest African nations received \$294 billion in loans and paid back \$298 billion in principal and interest, but still owe more than \$200 billion. Huh? Fortunately, after the G8 summit, 18 of Africa's poorest nations received debt-cancellations.

3. More & Better Aid. There's issues surrounding the "conditions" of aid like



Engineers Without Borders volunteers show off the goods.

privatization of industries amidst possible corruption in African governments, but the G8 Summit's pledge of \$50 billion dollars will definitely do more good. Also from that meeting, there will be universal access to anti-HIV drugs by 2010. More funding (than 10% of total) for medical research affecting 90% of the world's population is also a shift in priority.

4. Ending Child Poverty in Canada. Some might argue that before we deal with the rest of the world's problems, we should deal with our own first. Indeed, 1 in 6 children are below the poverty line with Aboriginals being disproportionately affected. Actually in 1989, the House of Commons resolved to eliminate child poverty in Canada by 2000... all the more reason to remind parliament of their civil duty.

Last summer, Sarah Lewis, the Engineers Without Borders (EWB) Waterloo Chapter President, interned in Cameroon, raising awareness on hygiene and sanitation issues. "It's a level of poverty that people who oppose the cam-

paign don't understand," she says. Here in UW, EWB is very active, holding Water-for-World workshops with ESQ as well as weekly discussions on world issues. Makepovertyhistory.ca wrist bands are on sale at our C&D and Turnkey, but the major initiative is the petition. "[At the Live 8 concert] we jumped into the mosh pit and started collected signatures from body surfers." says Rajat Suri, a dedicated EWB volunteer.

Click to <http://www.makepovertyhistory.ca/> to get yourself heard. [Also, writing to Prime Minister Paul Martin is postage-free!]

"Cynicism is the most common form of naivety."

#### Further resources:

<http://news.bbc.co.uk/1/hi/business/4663659.stm>

<http://www.live8live.com/>

<http://www.uwaterloo.ewb.ca/>

"Helping Africa Help Itself." The Economist. (June 30, 2005)

## Pushed

*Continued from cover.*

The price we pay for this wonderful new system is that a computer controls it. This may not seem bad to some of you, but engineering exams before this semester were created by humans. Scheduled with engineering students needs in mind, which is why we usually had a day between exams. The biggest problem with back to back to back exams is not lack of study time, though this is the second biggest problem, it is that some students do not perform well in exam situations. Remember your friend from last semester, or the one before, that used to be in your class. The guy who worked harder, and knew more than most people, but still failed anyways? Arguably, he knew enough that he shouldn't have failed, but exams are stressful, and not everybody deals with it well. The new schedules don't even give students like this a chance.

So let's get this changed, people. We don't need the added stress, we don't need to lose 20 students a semester, we don't need to fight a battle every semester to get a reasonable schedule, and we certainly don't need to be told what's best for us. This is why I want all engineering students to speak up to their representatives in the senate and tell them that we need schedules built to around an engineering student's needs. Our faculty is much different than arts, sciences, etc, and while this new system may work for them, I ultimately feel it will not work for us.

Your engineering senate reps are:

Ed Jernigan  
([jernigan@engmail.uwaterloo.ca](mailto:jernigan@engmail.uwaterloo.ca)),  
Gerry Schneider  
([gerrys@mecheng1.uwaterloo.ca](mailto:gerrys@mecheng1.uwaterloo.ca))  
Stephen Birkett  
([sbirkett@engmail.uwaterloo.ca](mailto:sbirkett@engmail.uwaterloo.ca)).  
Our student senator is  
Jon Fishbein  
([jfishbein@engmail.uwaterloo.ca](mailto:jfishbein@engmail.uwaterloo.ca)).

These people have taken the noble job of representing our best interest, so let them know what that is. E-mail them asking them to get this changed. If you don't take 3 minutes out of your day to do this, don't complain when you get a semester with 3, 4, or maybe even 5 exams in a row if this is what a computer deems an ideal schedule. We can deal with the 2.5 hour exams, but we won't deal with computerized scheduling. Thanks for reading this and I hope it has inspired you to stop getting pushed around by this school.

# Mechs humiliate Elecs in historic match

DAN KADYLA  
3A MECHANICAL

History replayed itself on July 7, 2005 at 7:30pm as the epic struggle between good and evil was played out at Columbia Icefield. Elecs were again defeated, for consistency's sake, 3-1.

After the Mech goalie strategically placed the first goal to give the Elecs a false sense of confidence, it was all over. First, Edmundinho set the pitch for things to come as he entered a header from corner kick reminiscent of Maradona's hand of God, minus the hand. Following that, half-man and half-amazing, commonly referred to by the general public as Mo, entered a goal received from Reza's self-proclaimed "Golden Pass ©". Finally, international assassin Mr. Popic, after setting up his tripod from the corner and looking through the scope, shot a clean goal. Big Reza was yellow carded after unleashing his fury as a result of an Elecs unruly conduct, who was most unfortunate to feel the full wrath of Reza's belly.

Congratulations to Big Reza (Coach/Motivational Speaker), Edmundinho (Captain), Mo, Vlad, Dr. Woo, Jenn, Nick, Neil, Martin, Terence, Tom, Dan, Adrian, Frank, Will, and Louis. Dr. Woo, fearing the onset of a second tsunami, had to be coached out of his den and could have upset the dynamics of the game.

The mystery remains unsolved, why the Elecs continue to voluntarily subject themselves to humiliation.



ENGINEERING  
SOCIETY



Did you know you can earn valuable P\*\*5 points for volunteering time at the C&D? Email Mary Bland at [mbland@engmail.uwaterloo.ca](mailto:mbland@engmail.uwaterloo.ca) to schedule your shift.

## ENGINEERING SOCIETY EXECUTIVE REPORTS

## Plays coming up!



**NICK LAWLER**  
PRESIDENT

Hey everyone, hope that you are staying cool during this long and hot summer. The term is almost up, and exams are around the corner, but there are still lots of EngSoc events to attend, and fun to be had. The EngPlay is coming up the weekend of July 23rd. It's going to be a fantastic show, watch for posters for more details. Speaking of student plays, our Faculty colleagues at the School of Architecture are also putting on a play. Their shows are at 7pm July 15 and 16. The show is at Galt Colligate at 200 Water Street in Cambridge. Tickets are \$12 and can be purchased at the Orifice.

Another great event is coming up called Student Life 101. You may have come to

this when you were a pre-trosh. The whole Campus is opened up on Saturday July 23rd for incoming students and their families to visit and find out about where they are about to spend the next five (or more) years of their life. EngSoc and the other student societies on campus will be selling food on the Bomber Patio from 11am to 2pm, and if you aren't too busy, drop me an email and let me know you are interested in helping out. You get a free t-shirt, and invites to the Student Life 101 volunteer party later that night. This is the party that started the infamous "FOC Shots" (a practice that has unfortunately been halted).

The last EngSoc meeting of the term is on Wednesday July 27th. Traditionally the last meeting of the year is a potluck and held in POETS, and this year is no different. All are welcome, so come and join you're classmates, bring a dish to eat, and come out. Rumour has it the TOOL will make an appearance, and awards will be given out. Bar Services will also be manning the POETS Bar. Hope to see you all there, and get out of that computer lab and enjoy the nice weather!

## Fashion show!



**SABRINA GIOVINAZZO**  
VP FINANCE

At the last EngSoc meeting, donations were decided for those who submitted proposals. Once again, check the website because they're posted there if you'd like to know who got how much. For those who received donations, cheques will be available in the Orifice for pickup.

Novelties still has lots of new and great

things, so make sure you check it out. If you don't know where the Novelties store is, then it's right beside POETS, and it's open during lunch so stop by! This term, the directors have come up with a great idea; a FASHION SHOW! It'll take place on Thursday, July 21st just outside CPH (where Boggan Burgers are sold) from 11:30-1:30. You'll get to see the directors sporting some stylish clothes; so if you've never stepped in the store, then here's your chance to check out some of the exciting new things we have. You won't want to miss it!

Finally, for those directors who need money, make sure you fill out your expense reports and cheques will be made.

## Get ready for P4



**MIKE BUCZKOWSKI**  
VP INTERNAL

Only 3 weeks left of school and I've accomplished very few of the goals I set out for this term. Goal One: Cut down on the drinking... This has obviously not happened based on the Bond Chemical support of the PBD at POETS. (Plus the fact that I'm broke, \$ Money accepted in the Orifice to support me) I'm not sure who's drinking all the beer but there sure have been a lot of empties returned. Goal Two: Come up with new events which are fun and interesting for engineering... I've come up with them but been unable to make em happen, definitely next term for most of my ideas guys and gals. I'm not giving up on some of them yet, ie the ones

which are unable to be held during winter but enough of my rambling.

Thanks to everyone who came out to Tal-Eng last week. It was an amazing time, we all had a blast and it was outstanding, if you missed it make sure you come out next term. Second, this Saturday, ie two days from now, there will be a POETS Patio Pork Pyre "P4" where for the measly cost of a ticket you can get all you can eat pig, and BEVERages as per the normal POETS procedures. I expect to see tons of people out for this event it is going to be a blast!

That's about all I've got going on right now, go see the architecture play on Friday July 15 it is going to be amazing, keep POETS rockin', my birthday is July 24 but I plan to be drunk from the 22-25 so keep an eye out for me, and keep engineering the pimpest faculty on campus!

Plan to attend the following events (or I'll hunt you down and take your lunch money) Class Rep Advisor Party, Engsoc Potluck, Genius Bowl, probably some other shit, check out the whiteboard that's why it is there!

## Got Debt?



**MELINDA HURD**  
VP EDUCATION

Howdy, can you believe that I am still writing midterms in JULY!! What is this? It's a good thing that I love organic chemistry. At any rate, thanks to all the

classes that participated in filling out the Debt Load Surveys this term - the results will be published by the Dean's office in the last IW issue of the term. Also, completed course critiques may be dropped off in the orifice (in the convenient boxes) until JULY 15th. If you have an interest in attending the course critique reading party (aka free food and some laughs) send an email to Kathryn Pomeroy @ kempomer@engmail.uwaterloo.ca and you may be added to the guest list. That's all for now, enjoy your last 3 weeks of classes!!

## Hellooo~! WEEF!



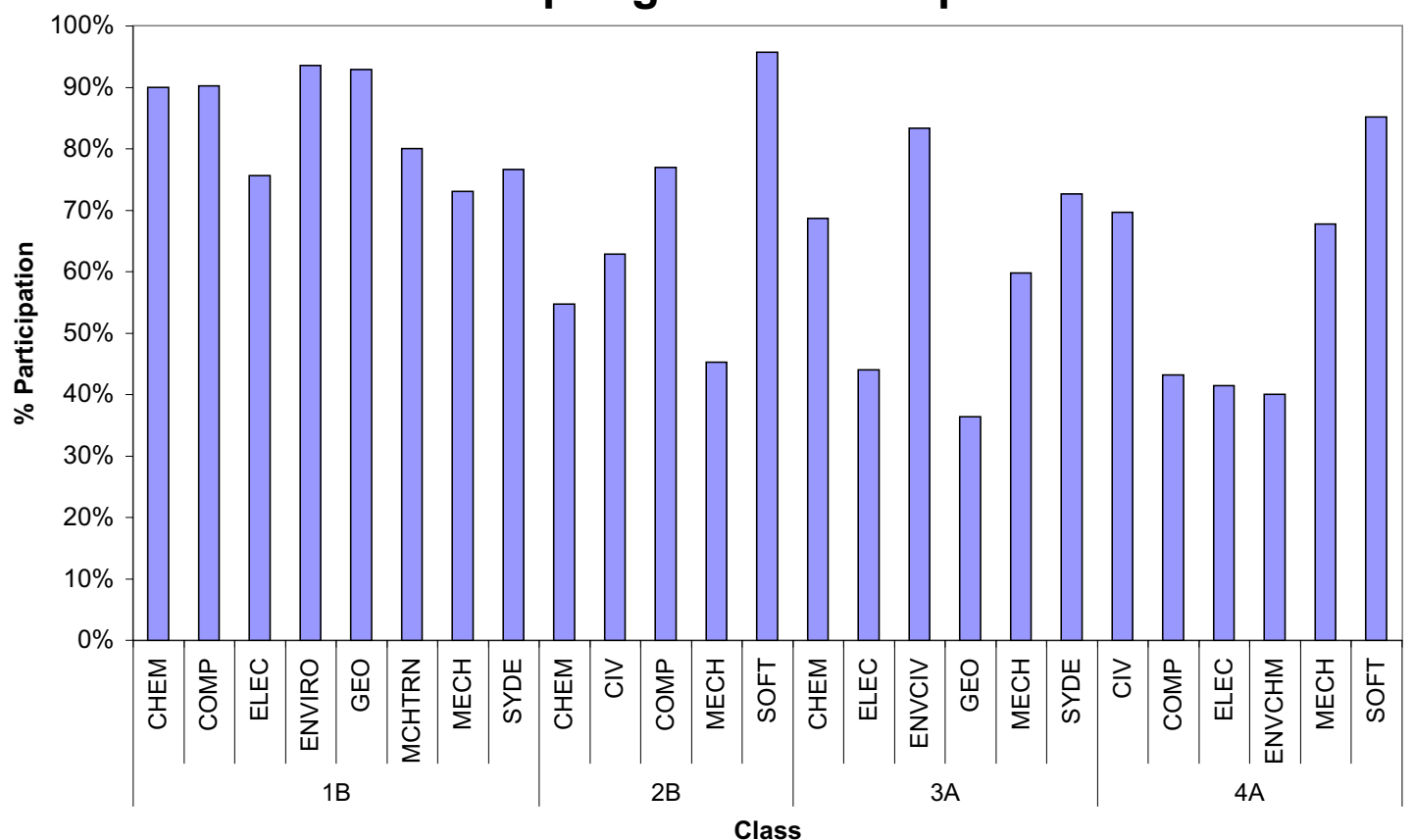
**KATHERINE CHIANG**  
WEEF DIRECTOR

Another issue already? Man time passes fast.

Finally, the numbers are in. WEEF participation (as seen in the nicely produced bar graph on the right here) this term is a bit lower compared to the past couple of terms. Congratulations to 2B Software as the class with the highest participation rate. Runners up are 1B Enviro and 1B Geo.

WEEF Funding Council will be meeting next Wednesday, July 20th, to allocate available funding for the Spring 2005 term. This term, we will be allocating \$70,000 to departmental purchases and student projects, so stay tuned for the funding decision in the next issue of Iron Warrior.

## WEEF Spring 2005 Participation



## Upcoming Events from EngSoc

Sun July 17	Mon July 18	Tue July 19	Wed July 20	Thu July 21	Fri July 22	Sat July 23	Check out up-to-the-day event postings on the EngSoc website at <a href="http://www.engsoc.uwaterloo.ca">www.engsoc.uwaterloo.ca</a>
	Brunny trip	EWB General Meeting DC1302 5.30p	WEEF Funding Council 5:30p RCH 302		Engplay!	Engplay! Student Life 101	
July 24	July 25	July 26	July 27	July 28	July 29	July 30	
Joint Council			Engsoc Meeting 5.30p CPH 3385 Potluck!		Lectures end Enginuity		

# Engineering exchange: Experience the world!



EDWARD HO  
3A MECHANICAL

Have you ever dreamed of traveling to the other side of the world, but felt restrained by the endless schedule of school and co-op? Or perhaps you wanted to breathe some meaning into your hard earned co-op money?

Then there is an opportunity for you - the UW Exchange program. Experience the world in a whole new light, and immerse yourself in another culture. Set forth towards the unknown, to a foreign land far from the familiarities of home and friends. And best of all, this entire experience can be yours during an academic term, and can count towards your degree!

Such was the incentive that possessed me when I had applied for an exchange to Singapore exactly one year ago. The UW exchange program allows students to study in another country at a host university while earning UW credits that can count towards their degree. To fulfill this, UW has several exchange agreements with several overseas universities. I had gone to Nanyang Technological University (NTU) in Singapore in 3A Winter 2005 - the best 4 months of my life. Singapore was a world-class city with a top-notch infrastruc-

ture - the public transport system was efficient and inexpensive (ideal for cash-strapped engineering students!) and everything was astoundingly clean (ex. there were the world renowned \$500 fines for chewing gum). There was so much to see and do, ranging from exotic temples and museums for the cultural types to

wakeboarding in the South China Seas for the athletic. Additionally, the people there were friendly and the food was excellent, inexpensive and easily accessible - it is quite easy to get plates of chicken rice for \$1.50. The weather was a scorching 30+ degrees on average (with the humidity, feels like 40 degrees), a full circle from the lash of Waterloo's dry winters. They also used English as a business and educational language, which fits perfectly for Canadian exchange students.

On one level, the exchange presented an opportunity to travel to other countries - Singapore is just a short jaunt away from neighboring lands such as

Thailand, Malaysia, and Cambodia. Every long weekend was a temptation to see one more country and test weakening study habits. I traveled around the region and took back some memories that would stay with me till the end of time, ranging from the grandeur of Angkor Wat to the poverty in rural Cambodia. Throughout it all, I picked up assorted skills ranging from bluffing through tricky situations (like the time where we were driving between cities and a taxi driver tried to extort money by threatening to drop us off in the middle of nowhere) to figuring out what to do when my exit flight from Thailand was cancelled. These were the things which had never happened to me in Canada, and form the basis for amusing lifelong memories.

On a second level, barring the traveling experience and differences in environment, what made the exchange different from being in Canada was the insight you can get just by befriending people from all over the world - there were the local Singaporeans and of course other exchange students from Europe, Asia and North America. The NTU exchange students were all introduced to each other through an orientation program, and it became incredibly easy to stay in touch with them throughout the term. Most have a desire to travel and explore the region, and in these little trips you get to know the nuances of other countries from people's mannerisms and the way they think - and

unexpectedly, from their reactions you pick up on the nuances of being Canadian! Its these bits of "culture shock" from time to time which makes you stop and examine your own culture.

For instance, you get an insight about "the Canadian identity" whenever you tell someone for the first time where you are from - their reaction may be far from what Canadian culture actually is, but it is an indication how it is perceived globally. To my immense relief, people viewed Canada as a friendly country impossibly far from Southeast Asia and unbelievably cold during the winters - there were no hostile reactions. Not every country enjoys such good repute. Anecdotally, on some rare occasions, a few students from America encountered hostile reactions from locals, when their nationality was revealed. It was somewhat amusing to see one of the American students always answering "Canadian" whenever he was asked of his

*"from their reactions you pick up on the nuances of being Canadian"*

nationality.

You also learn about Canada just by

surprised at how career minded the students at NTU were - an actual selling point



seeing the cultural differences between different countries: in Singapore, I was struck by the way people actually smiled in subways, which in turn were painted in bright white colours - contrast this with the grey drabness of TTC's trains and its unsmiling passengers. And on another note, I was

for going on an exchange, as cited by their brochures, was to enhance their resumes! These instances were so contrary to what I

*Continued on page 9, see Exchange*

## Batifole: Rabbit & snails in an unlikely locale

CINDY BAO  
4A ELECTRICAL

**Batifole**  
744 Gerrard Street East  
Toronto, Ontario  
(416)462-9965

A full meal + glass of wine, plus tax and tip: \$50

Near the intersection of Gerrard and Broadway is not where one would imagine finding a bistro like Batifole. After all, it's a neighborhood with plenty of joints for Pho and Dim Sum, not with items that people who stopped at Grade 9 French like me cannot pronounce.

The Chef/Owner Jean-Jacques Texier presents you with simple French home cooking, nothing too sophisticated and snobbish as many high-end French res-

taurants are. The menu is fully a la carte, with appetizers, entrées, sides and desserts uniformly priced at \$8, \$15, \$6 and \$6.5 respectively. Not so uniform is the quality of the food, some definitely a culinary delights while others you are better off doing without.

The rabbit terrine is an unwise choice to start a meal with. The cold meat is coated in solidified fat, having the same texture of butter that comes right out of the fridge. I suppose it is an insult to say I liked the accompanying gherkins better. On the other hand, the escargots are meaty but not too heavy, piled on a slide of bread that soaks up the tomato sauce nicely. The cream of Jerusalem artichoke topped with saffron foam is creamy and flavourful while the plate of shellfish doesn't stand out either way.

The entrees are just as uneven. The veal steak in a cream and white wine sauce is

overly rich and lacks in flavour. However, one would be crazy to pass off the braised beef cheeks, kept warm in a pot of beautifully clear stock that complements the tender meat and wintry vegetables perfectly. Quite average was the cod fondue in a leek sauce. In fact I hardly remember it, good or bad. Feeling more adventurous in spirit, I have also tried the horse tartare. It comes pre-mixed so I have no idea what goes into the seasoning. There is a side of capers, which end up being slightly overpowering, but that's partly my fault to putting them all in at once. The meat itself is rather creamy, nothing as tough as I have imagined.

The desserts fall somewhat short of expectation. The crème brulee is the standard fare, good but not great. It takes two people on staff to explain what the pot au chocolat is. "Is it like pot du crème?" leave our waiter scratching his head and the answer coming back being "like a pudding,

but baked", hardly qualifies as satisfactory. The actual dish is somewhat rich (not a bad thing at all), and slightly bitter (the burned taste, not the chocolate bitter).

Yet, food alone doesn't complete the dining experience, as I have learned from my culinary critic idol Joanne Kates. The servers at Batifole are as friendly and down-to-earth as the country-style food, none of the pretentious air and attitude. After not knowing how exactly the pot au chocolat was executed the first time, our waiter was knowledgeable in the subsequent visit (except coming back to inform us they ran out of one dish after we placed our orders).

Despite a few flaws, I applause Texier's daring decision of opening a cozy restaurant in this seemingly unlikely neighbourhood. With the right menu choices and good company, it can be a perfect evening within walking distance.

## Celebrities and the rule of a single law



ANDREW DODDS  
1B MECHANICAL

Wacko Jacko is free again. This after a lengthy court battle over his sexual adventures. Of course we all know that he is accused of plying a young cancer-stricken boy at his Neverland Ranch, accused of showing him porn, masturbating him, and who knows what else he might have done. But after hours and hours of deliberation, a jury decided that there was not enough evidence to convict him. "We tried to ignore his celebrity status and to look at him like any other person," said one juror. Another even mentioned that they thought he might have done such things at one point, but that there was not enough evidence to prove that it happened in this circumstance 'beyond a reasonable doubt'. Starving and shaking, Michael Jackson returned to his Neverland Ranch and has remained there since.

Just a couple weeks ago, after a whirlwind romance, Tom Cruise proposed to actress Katie Holmes. The proposal is touted by critics as a publicity stunt, which they vehemently deny. After all, Katie had photos of Cruise on her walls when she was a young teenager, so the romance is obvious, right? For sure it's also the same thing for Ashton Kutcher and Demi Moore.

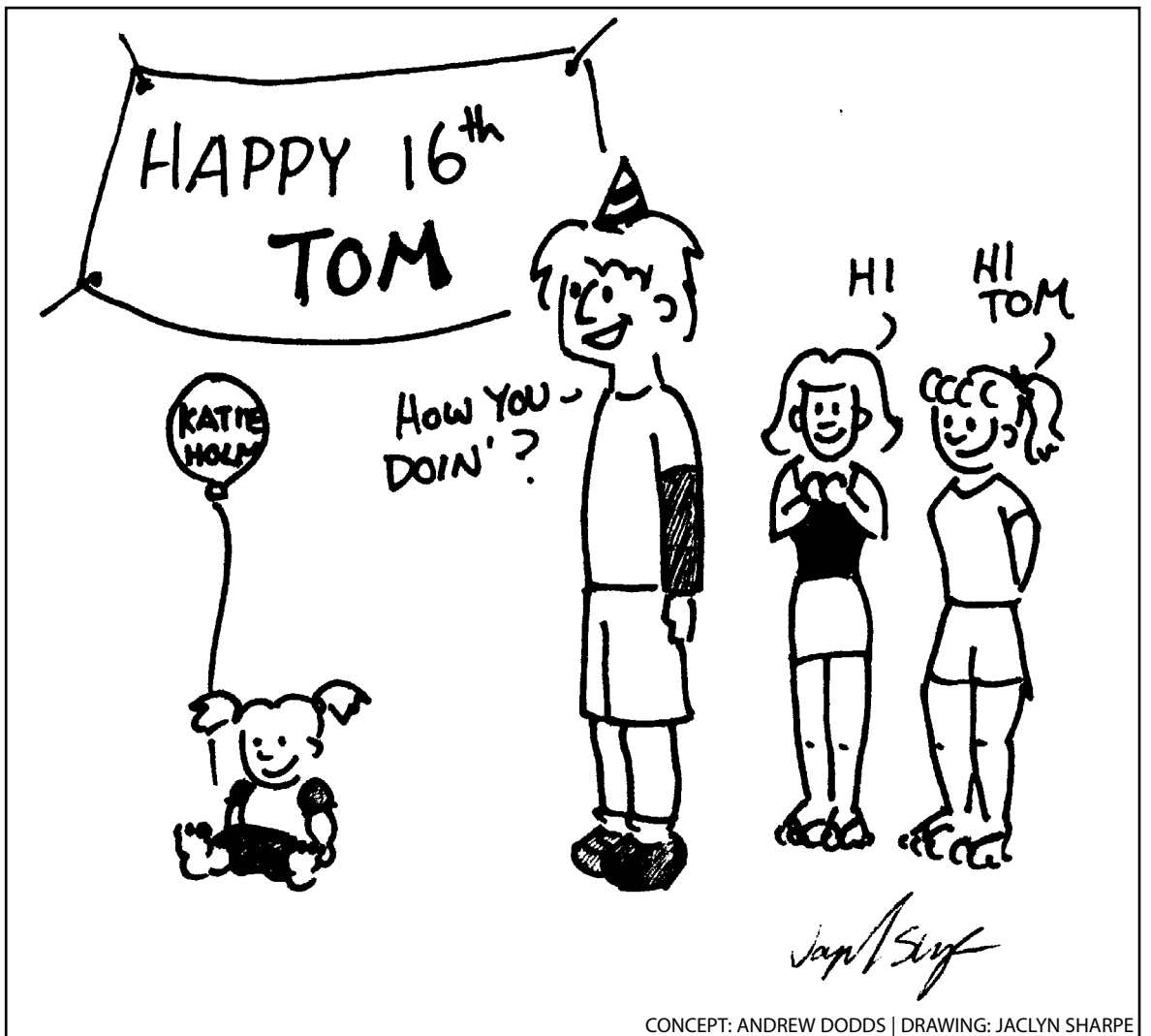
So what's the connection here? In all cases it's about celebrity status and what that brings. Should stars be treated any differently than anyone else? They've earned millions of dollars and can be recognized worldwide for their work in film. Does this grant them immunity to simple deeds? It certainly didn't save Winona Ryder from her five-fingered discount 'shopping spree'. But the flip side too, does their status mean we must hold them to some higher standard?

Some would argue that we should hold them to a higher standard. Many children and even fully mature adults can be affected by the actions of the Hollywood elite. Their exposure is everywhere in the world. With their money and fame, many people look up to them as an example of the better life. Many have seen (barely) celebrities such as Kate Moss and Calista Flockhart with their bony figures and undoubtedly there are women in the world who question their own shapely curves, and consider the bony board look the sexual ideal, pursuing unhealthy and dangerous methods to achieve it. It is inevitable that we are influenced by those more well-off than ourselves, and the lives of celebrities are full of opportunities to pursue unique lifestyles. But does this mean that just because Michael Jackson might have done something, that he should go punished when 'wonderful' lawyers ensure that many normal people who commit such crimes go free every day on technicalities?

In reality, celebrities are who they are because of us. Really, they are just like us: they are people. They eat food, they laugh at jokes, they pay taxes. How can we justify treating them differently? If we were to do that, we might have to change how we treat everyone. The 'cool kids' from grade school carried as much sway as celebrities, and convince many kids to

change their ways. Should we treat them differently? It is not the fault of anyone when someone copies them. We need to be taught to think and act for ourselves, and that no amount of celebrities drinking Pepsi (or not eating anything) should be able to convince us to do the same. But does this mean that Cruise deserved to keep my uncle from visiting the top of the Eiffel tower the one day he was there with his mother? Or that we should let relationship age gaps like those present in the Cruise-Holmes or Kutcher-Moore relationship go on? Such age gaps as those have brought people to court before (notably in bigamous or polygamous religious groups).

No, I think we need to be taught to abide by a single rule of law, that applies evenly over everyone. We should protect conflict of interest though to ensure no more Martha Stewart incidents, but other than that, be you prince or pauper, the same rules should apply throughout. We are, after all, the same human beings, equal in all ways. But in the future both celebs and norms alike should be careful to avoid inviting children to bed with them, or starting relationships with people who weren't even born when we graduated from high school, for the good of us all.



CONCEPT: ANDREW DODDS | DRAWING: JACLYN SHARPE

## Iron Warrior Photo Contest

Send in your large (ie: 1920 x 1440) pictures to [iwarrior@engmail](mailto:iwarrior@engmail). If you have prints, drop them off in the IW mailbox in the Orifice. Include your name and class in either case.

Contest format is informal, no theme, but maximum three entries per person. It will be printed in b&w, so don't send us pictures of rainbows.

Due date: Thursday July 21 11.00am.

Small prizes will be awarded. (The Iron Warrior is of modest means!)

Questions should be directed to [iwarrior@engmail](mailto:iwarrior@engmail)





# Live or let die: Communicating your wishes



ANDREW DODDS  
1B MECHANICAL

We've all heard about the tragedy last term of Terri Schiavo. Here's a brief summary if you were under a rock. 15 years ago she mysteriously collapsed and was taken to the hospital. A few months later her husband Michael was appointed legal guardian, which her parents accepted. She never regained normal brain functioning from then on. Many times different doctors had diagnosed her as being in a persistent vegetative state, which means that she had only enough brain power to keep her body going with a little hospital-style help. Several times her husband tried to have her feeding tube removed, but her parents always fiercely opposed this and stopped it in the courts. To this day they believe that she would recover.

Finally, early this year, Michael won his court battle and the tube was removed. He always argued that she had made it clear to him that she would want that if she were

to slip into this situation. Nobody else was told of this, and her parents never had the slightest belief that she would have wanted that. Many tried to get the tube reinserted. Her parents went through more courts, only to have them refuse to take the case. George Bush returned from vacation to sign legislation to aid their efforts. Florida Governor Jeb Bush even tried to get Terry taken into custody of the state. There were also always many protestors outside the hospital. March 31 of this year, after over 15 years, Terri passes away after 13 days without her feeding tube.

Now we have found out that after an autopsy that she would never have recovered. Her brain suffered mass damage, was half the weight of a normal brain for her demographic, and she was also blind. Still her parents refuse to disbelieve that she would have recovered, even though brain cells do not regenerate.

A similar sort of medical incident occurred here in Canada. A 14-year old girl from B.C. had cancer, and doctors needed to treat her chemotherapy with radiation. This would require blood transfusions. The conflict here was her faith: Jehovah's

Witness. This forbids blood transfusions. As she was a minor, she would have to accept the treatment, and her parents could do nothing. They fought hard in the courts, losing battles in Ontario, but eventually the B.C. Supreme Court changed its mind, and her parents were allowed to seek whatever treatment they saw fit. This led them to New York, where she could get treatment without blood transfusions.

## "Who has the right to decide?"

Witness. This forbids blood transfusions. As she was a minor, she would have to accept the treatment, and her parents could do nothing. They fought hard in the courts, losing battles in Ontario, but eventually the B.C. Supreme Court changed its mind, and her parents were allowed to seek whatever treatment they saw fit. This led them to New York, where she could get treatment without blood transfusions.

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his wife would have wanted. The B.C. girl's parents actually refused to believe she needed any treatment for the cancer, that it had all gone away and she was fine. They only fought to take her to New York when our system forced the girl to be given treatment for the illness obviously present. Sad too was it that Juvenile diabetes, a disease that can be handled well but only with lifelong treatment was the cause of a perfectly preventable death thanks to a religious leader.

I would not want to think of this at such a young age, but I urge you to let those close to you to know your wishes for these times. Your words, if properly communicated, can save a world of pain and arduous times for your family. Fifteen years those close to Terri suffered watching her degrade, and it was because of the religious beliefs of her parents that she could defy science and laws of nature and recover. The pain that they suffered through is unimaginable, and to bear it for 15 years is unthinkable. Don't do this to your family, and don't let wishes and hopes of recovery cloud your family's view of the scientific inevitable. Save your family and friends grief, and make sure that we don't see another one of these cases ever again.

# Chest too ample? Package too prominent?

Studios should spend money on better things, like making good movies.



SHELDON PETRIE  
4A MECHANICAL

What do Lindsay Lohan's breasts and Ioan Gruffudd's penis have in common? They both went digital size reductions in Herbie: Fully Loaded and The Fantastic Four, respectively.

The new Herbie film was test screened several months ago to parents and their children. The biggest complaint aside from the movie totally sucking, was that the lovely Lindsay Lohan's chest just occupied too much of the silver screen. The 18-year old's breasts were deemed too raunchy for the family film. As a result Disney CG "animators" went back and digitally reduced her neck line in some scenes, and gave her character a two-cup size reduction as well.

The most apparent changes were made to scenes where Lohan's character is at a race track, jumping up and down repeatedly in a t-shirt. Can we say unrated DVD?! Bring it on!

In the new Fantastic Four movie Mr. Fantastic's (Ioan Gruffudd) Lycra suit made his fantasticness a bit too apparent, and had to be digitally reduced in size. I'll pass on this unrated DVD, thank you.

The start of the digital age of film

was way back in 1991. The now-simple liquid metal and morphing effects of the T-1000 in 1991's Terminator 2: Judgment Day wowed audiences worldwide. Present day it is hard to find a movie that does not contain some sort of digital effect.

Movies flaunt digital effects in many ways—from the removal of wires, complicated bullet-time effects, spaceships and battles, lightsabers, and so on. One of the most amazing forms of digital effect is to fully render a live action sequence. An entire shot or shots are done completely digitally, while having the appearance of actually being shot on stage.

Such "Virtual Cinematography" was pioneered on The Matrix Reloaded for several sequences. One such scene was the "Burly Brawl" where Keanu Reeves's Neo battles 100+ Agent Smith's.

2004's I, Robot also featured several virtual sequences that are so good I could not tell that they had been completely generated digitally until I watched the "making-of" featurettes.

In "Reloaded" at least 5 shots of the sequence were rendered completely within the computer. Shots were rendered in a photo-real environment created with pictures of the actual set.

The cost of such special effects make it even possible for low budget films to benefit from computer generated special effects. Check out Donnie Darko to see what can be accomplished for less than 5 million dollars. Now, the polar opposite of low budget films of any era is the new Star Wars films, which contain hundreds, if not thousands of digital effects and visual effects shots.

It seems now that whenever a movie has a problem filmmakers will turn to digital magic to try and fix them. This can be used to improve editing between shots, fix technical goofs or items/persons in the frame which should not be there.

The special features of The Phantom Menace DVD clearly show how George Lucas can go back years after a scene had been shot and re-edit digitally—literally splitting a frame in half to delay one portion of it in relation to the other half.



In Episode Two he used it to mix and match different takes of a scene between Anakin and Padme to get the best possible sequence given the material that was shot.

Such things are now trivial if they help to tell the story. However, such manipulation of Herbie: Fully Loaded and Fantastic Four are more or less unnecessary. Parents might complain about Lohan's breasts, but most of them probably wouldn't. No movie has gotten an R-Rating due to a gentleman's generous package (albeit well-hidden by a superhero suit).

The companies backing (i.e. funding) the new Herbie and Fantastic Four movie certainly want to ensure a healthy return on their investment—but will such tinkering really have as great an impact on the movies? I hardly doubt REDUCING Lindsay Lohan's breasts will increase box-office or DVD sales from the teenage boys. Since that demographic is not the target of Herbie: Fully loaded, Disney decided to market to the family/teen girl market.

The new Fantastic Four movie is already getting pretty awful reviews (even worse than Elektra, ouch!) and I doubt any sort of digital manipulation will be able to save that movie from comic movie mediocrity.

# Exchange

Continued from page 7: Exchange

was used to back at home that I had wondered, "Why is this the case?" The answer was of course in their culture and values, and the institutions, history and people that reinforced it. It is by understanding the "why" about another culture that we begin to realize how much of our own actions are subtle products of being Canadian. (An excellent UW List A CSE which examines the cultural constructs of reality is "ANTH 102: Cultural Anthropology", an excellent introduction to anyone with an inquisitive mind - I would recommend the course to anyone, regardless of whether or not they are going on an exchange).

It was these cultural aspects which made the experience unique and one of the many reasons why I would encourage anyone to go. There is also the classic opportunity of seeing many different exotic places and, depending where and when you go, the prospect of enjoying tropical sun during winter.

So how do you go on an exchange? Check out the engineering exchange website here:

<http://www.eng.uwaterloo.ca/~exchange/>. Listed there are procedures for applying, the existing universities which Waterloo has exchange programs with, as well as some of the courses which past students have taken - these are the courses which you are more likely to receive credit for, but you are by no means limited to just those courses. Take advantage of the unique courses in that host country that you can't find in UW - for an example, at NTU there is a course on Chinese brush painting. It is also possible to study in countries and universities not listed on the website - engineers of any program can essentially study in any country, as long as they can find matching courses with the ones at UW and obtain a Letter of Permission. The application process may seem intimidating at first, but it leads to a worthwhile, life changing experience. Good luck!



# Canada Day Celebrations



**KATE KELLY**  
3A ELECTRICAL

Last Friday, July 1st the Engineering Society held the 'Mini-Olympics' for kids at the annual UW Canada Day celebrations at Columbia Fields. The four Canada Day directors (Hilary Lockie, Andrew Kowpak, Evan Thor, and Kate Kelly) put in a lot of effort in the week leading up to the day, building slingshots, buying freezies and bugging the fire department (with whom we're real popular these days). Meetings were attended and generally some work was done.

Bright and early Friday morning the UWAFSTruck helped us bring the piles of kiddie games over to the field where everything was being set up. Since we had a dunk tank to fill up and a giant water slide to set up we had to get the fire hoses the fire department had so graciously lent us attached to an in-ground fire hydrant. Having never tried to open a fire hydrant before we weren't really ready for the consequences of opening one while the water

is turned on.....FOOOM! Two of us were soaked and a 20 foot high water geyser just happened to appear in the middle of the field. We spent a few minutes trying to get it under control but we couldn't. So those lovely firefighters we'd been bugging all week got a call and showed up fully dressed in a fire truck to solve the problem. They basically sent the youngest guy in to shut the thing off...it was more than a little embarrassing. Once the geyser was under control things ran really smoothly, many people went in the dunk tank and all our events: (tug of war, musical hardhats, water balloon toss, obstacle course, giant slingshot, giant twister, Calvin ball, spoon races, Toolbearer says, the dunk tank and of course the giant water slide). By the middle of the day it was really cold and not many of the little kids wanted to go on the water slide, so the volunteers started having some fun. The gasps and laughter from the kids as each volunteer was soaked by the fire hose and then threw themselves down the slide were absolutely priceless. The day was a huge success and everyone enjoyed themselves.

All of our volunteers were fantastic and deserve a HUGE thank you! If you would like to see all the pictures just e-mail us and we'll send you the link.



#### From left:

UWAFSTruck prepares to get wet | Volunteers pose by fire hydrant  
Revelers enjoy slide.



## The Iron Warrior needs your help! Editorial applications now open.

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Responsible for overall operation and content of paper.

#### Assistant Editor

Performs EIC duties in absence of EIC.  
Contributes in proofreading and preparing layout.

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#### Photo Editor

Takes pictures and prepares them for publication.

Apply online at  
[www.engsoc.uwaterloo.ca](http://www.engsoc.uwaterloo.ca)  
(Under ENG Forms)

Applications due  
July 24th 2005

# What do those ESQ kids do anyway?

We've been locked out of labs and are getting the shaft.  
At least those kids better be having a good time.

ANDREW DILTS  
DAILY BULLETIN

It's Quest time of year again, and the campus is flooded with budding young scientists and engineers as part of the annual Engineering Science Quest summer kids' camp. Through such creatively themed camp programming as "CSI: Summer Camp," "Welcome to the Wild West" and "Honey, I Shrank the Kids," more than 300 young people will be exposed to the magic of science and engineering between now and September 2.

Marking its fifteenth anniversary this year, ESQ has exposed thousands of young people -- entering grades 1 through 12 -- over the years to science through fun, educational, interactive activities. One popular chemistry lesson, for example, uses ultra-cold liquid nitrogen to make ice cream in just a few moments. Another activity explores biology by offering students the chance to make their own anatomically-

correct jello moulds of the human brain. Specialized Lego kits (right) allow campers to explore the worlds of mechanical engineering and computer software by building their own programmable robots.

"At ESQ, kids experience science in a really unique way," said ESQ assistant director Lynda Martin. "For a lot of kids in elementary school, science is something that can be a bit boring or uneventful, but when they come here it becomes alive. The way we present the science to them is something they can connect to, it's a very meaningful experience. It's something they can take home with them."

In recent years, ESQ has also begun to offer specialized tech-focused camp programs. Known as the "ExXtreme" camps, youth entering grades 5 through 10 are eligible for these in-depth experiences. Photo and video editing, web design and mechatronics engineering activities that use specialized Lego kits are all part of the typical ExXtreme camp.

In addition to its regular on-campus summer programs, ESQ reaches students throughout the province each year. Special ESQ science "clubs" operate over the winter at UW: there are special Lego, science and girls-only programs offered to local budding scientists.

Each May and June, ESQ leaders travel to schools throughout southern Ontario, offering special science and technology workshops for students still in the classroom. Finally, ESQ goes off campus each summer -- far, far off campus -- with week-long "satellite" programs for youth in the Tobermory, Six Nations, Stratford, Wiarton, Lion's Head, Chatham and Paris (Ontario) areas.

Budding science and engineering enthusiasts are not the only ones who benefit from the presence of ESQ. Through the office of the dean of engineering, the camp also employs more than 50 university students in leadership roles over the course of the summer.

## Do You Have Something to Contribute?

Drop off your poetry, cartoons, drawings, photos and anything else artistic in the "Arts" box in the Orifice, or email them to [iwarrior@gmail.uwaterloo.ca](mailto:iwarrior@gmail.uwaterloo.ca)

Submissions may be published here in The Iron Warrior, and earn you valuable P\*\*5 points for your class!

# London attacks highlight the need for action



ANDREW DODDS  
1B MECHANICAL

Thursday July 7th began as any other day for many in the world. Students at UW went to class to learn, US Army soldiers went out in Iraq to fight for democracy, and people in London boarded the transit system in order to get from A to B. While nothing can be said for sure of the success of the former two, the latter Londoners were not so fortunate in their innocent endeavours.

At 8:51am local time, bombs hidden on three subway lines exploded within minutes of each other, tearing apart not only the train cars, but many lives in the process. A few hours later, the scene looked like an action movie as another exploding bomb bounced one of London's famous red double-decker buses sky high. To date, there are 49 confirmed dead, with about 700 more wounded in the four attacks. Casualties are expected to rise as critically wounded passengers do not make it, and further excavation is done on the tube blast sites, once they have been structurally secured.

Shortly after the attacks, British Prime Minister Tony Blair left the G-8 to return to his people in this time of tragedy. "The purpose of terrorism is just that. It is to terrorize people. And we will not be terrorized. They are trying to use the slaughter of innocent people to cow us. They should know they will not succeed." It was the perfect answer for the concerned British people, uniting them in their time of disaster, and saving them from massive civil strikes that would only further aggravate the situation.

On the subject of the attacks themselves, not much is yet known. Investigations are underway, with only small details having come to light so far. The coordination of the subway bombs, all exploding within a minute of each other, makes the case that this was too much work for just one individual. Their underground location would have made cell-phones a failed trigger for the 4.5-kg bombs, and although suicide bombers are not suspected at this time, it

is not being ruled out. An al-Qaeda division of Europe has claimed responsibility for the attacks on its website citing the British support of the war in Iraq as a primary reason, but they cannot be substantiated.

These bombings reopen fresh the wounds inflicted when nearly four years ago four passenger planes crashed into a field, the Pentagon, and New York's Twin Towers. Back then, the tragic events spurred a global airways shutdown, border bonanzas, and outcries from everyone for every kind of preventative method imaginable. This time, things are much calmer, not to play down the severity of this incident. The London authorities had practised for just such an emergency contingency plan in the wake of 9/11, and say that their handling of this incident could not have been better, and that it saved many lives with quick, efficient and streamlined responses and procedures. There were no police or firemen lost in the wake of this incident due to crumbling subways and tunnels.

On our front, we realize the vulnerability of the system. Anyone could get on a bus with a full meal courtesy of "The Anarchist's Cookbook", innocently leave it on the bus, and then detonate it with the aid of a cheap cell-phone. CBC recently pointed out that they were able to get a reporter from the streets into the baggage section of a train without once being checked by security, or even asked for a ticket. Fear-mongering in the media aside, one must wonder every now and then how a normal day can become an extraordinary nightmare.

Then we think back, think to the cause of these atrocities. Terrorism. Terrorists caused the New York skyline to be forever changed and shook not only a city of millions but arguably the most powerful and prominent force in the world. Terrorists took many more lives in the Spain train bombings, and now again strike against the free world in London with these transit attacks. Why? In this case, the most obvious answer is the war in Iraq.

That makes you think, doesn't it? What if the Liberals had not been in power, and Harper's Conservatives had been able to shower our military in huge budget helpings, and join up with the US's "Fight against terror" in Iraq. An example

of what happens when you meddle in the national affairs of other countries, could Canadians have made a better example than those in London? Do you feel safe on your work term as you ride the TTC every day to work?

But what is the cost of fear? It is undeniable that the US efforts in Iraq, while covered in the scars of hundreds of American's lives, have certainly given a focus to the efforts of terrorism, and also a hindrance to its spread. While the main cause cited by terrorists for attacking against "freedom fighters" has been the US's continued occupation of Iraq, the recruiters would not scale back their efforts should the country be left to its own ways. It would merely give terrorism an easier time to prepare and spread. Training camps could take place in broad daylight without fear of being bombed by F-16 pilots looking to blow up some terrorists. Suicide bombers could attack against big-

ger targets than the latest Americans seen walking down the streets.

As much as I hate to think of agreeing with the "war on terror", I can't help but wonder how terror might have spread differently if Bush had been Gore and we took the time to carefully analyze things, or how the shape of the world would be different if in the 40s Hitler hadn't made so many crucial errors or if the Americans in '45 hadn't just given the world back to everyone.

It is a dangerous new world out there with much to fear and consider before making any move. We must be mindful of our actions and the consequences they may bring about down the road. But, as Thomas Jefferson once said, it is so simple now. "Evil triumphs when good men do nothing," and so inaction is the greatest threat to us all.



"A candlelight vigil in front of the British Embassy to Bahrain to show solidarity with the British people, and to express our complete rejection of the terror attacks in London that took place on Thursday."

- <http://chanad.weblogs.us> | July 10th, 2005

## 2005 George Dufault Medal for Excellence in Communication

PRESS RELEASE  
IW NEWS SERVICE

The 2005 George Dufault Medal for Excellence in Communication has been awarded to Jeremy Daniels, a fourth year student in Mechanical Engineering at the University of Waterloo. The winner of this silver medal is chosen annually from those final year engineering students who participate in the Sanford Fleming Foundation Technical Speaker Competition. Selection is based on the level of excellence achieved in the competition and the number of workterm reports graded outstanding while an undergraduate.

The award was established by the family of the late George Dufault in recognition of his contributions to the University of Waterloo. In 1957 Professor Dufault set up the Department of Co-ordination, the forerunner of Co-operative Education and Career Services, and directed it until 1958. He then served as a lecturer in physics, and later as an associate professor in electrical engineering until his death in 1980.

For more information, please contact:

Christopher P. Dufault  
461 Tweedsmuir Ave.  
Ottawa, ON K1Z 5P1  
613 728-1677  
Dufaults@ncf.ca

## Of penguins and textbooks

KADER EL-FITYANI  
2B MECHANICAL

First and foremost, penguins can fly. Secondly, Waldo is hiding on the second floor of RCH. I have decided this term to purchase my textbooks online. This saves me a tremendous amount of money, which will be promptly squandered on BEvERages. eBay is a decent starting point for amateurs, however, some specialty sites, which will be mentioned when they send me endorsement cheques, have better selection, and ordering past editions is by far the cheapest.

Current editions are for suckers. Certain profs will tell you that nothing short of the latest edition will do. However they are incorrect. No matter what anyone says, don't for a second believe that there are any notable changes other than the obscure picture on the cover. It's far too easy to be tricked into believing whatever incomprehensibly ridiculous falsity one can fabricate.

What is truly remarkable is how often one can do it to oneself. Since I have a firm grip on reality, or so I lead myself to believe, I am immune to this and anything else that is not a shark with a laser beam on its head. Grey is a very inexpensive colour, however with a few modifications, a publisher can create a new stylish silver cover, however that simple upgrade does not add \$60 in value to a textbook, and due to the cold, ice build up on the wings, and lack of snowplows to clear runways at the south pole, penguins rarely get a chance to fly.

Furthermore, the less dense atmosphere at the poles has a detrimental effect on jet propulsion. Once global warming kicks in and penguins can put together a solid labour proposal they will likely become the world's leading airlines.



At the latest Enginuity, Ryan Harris attempts to launch a spiderball into a cardboard box.

## Midnight Sun VIII unveiled

UW NEWS RELEASE  
IW NEWS SERVICE

After two years of intensive preparation for a North American competition this summer, the University of Waterloo Midnight Sun Solar Race Car Team today officially unveils its newest generation of solar car, Midnight Sun VIII, to the campus community and public.

The 2005 North American Solar Challenge, which will enter Canada for

the first time in its history, starts July 17 and the UW team will compete with Midnight Sun VIII. The race begins in Austin, Texas, and ends in Calgary, Alberta.

At the 2003 American Solar Challenge, Midnight Sun VII placed third overall -- the top Canadian team -- and won the technical innovation award. Also, Midnight Sun VII broke the world record for the longest distance travelled by a solar car in August 2004.

The team has competed in every major

North American solar vehicle race since 1990 and is the largest student-run project at UW.

Midnight Sun VIII has incorporated many new technical improvements, making it the team's most advanced car to date.

The solar-powered vehicle has been designed and constructed with a higher efficiency solar array, higher energy density batteries, improved aerodynamics and a more reliable mechanical system than its predecessor.



### Midnight Sun VIII

Participants in the 2005 North American Solar Challenge (NASC) will make history as the first solar car racers to cross an international border.

This race will also have the most teams from outside the United States; 10 of the 40 teams registered are from Canada.

The American Solar Challenge is normally held every two years within the U.S., but in this special international edition of the race, students will design, build and race solar-powered cars across the United States and Canada. Teams from universities, companies and organizations around the world will compete in what each hopes will be the fastest solar-powered car.

July 10-15, 2005  
Final Scrutineering  
Final Qualifier

July 16, 2005  
Display/Prep Day  
Austin, TX

July 17, 2005  
NASC2005 Start  
Austin, TX

## My message

AFSHEEN KHAN  
3A CHEMICAL

Let's be together and unite  
It's not the time to fight  
Gone were the days of slavery and oppression  
Living peacefully is our mission

Let's be together and unite  
Giving everyone their rights  
Teasing and insulting is not the way  
We should help one another night and day

Let's be together and unite  
Give others happiness and delight  
Killing and massacring is an act of shame  
For all the nations with great name.

Let's be together and unite  
Like a cluster of stars in a dark night  
With out any discrimination and enmity  
With tolerance and sincerity

This poem was submitted some time ago, but in the light of the terrorist attacks in London, and the efforts to lift Africa out of poverty, it seems appropriate.

It's message may seem trite, but perhaps as "The Economist" pointed out in their editorial, "Cynicism is only the most common form of naivety."

## Cup Brawl 2005

JAMES JOHNSON  
4A CIVIL

Are you ready? The next pub crawl is coming up on July 15th, 2005. These outstanding events are arranged by the friendly group, GRADCOMM. That does not mean that pub crawls are only for graduating students, all are welcome. In fact, "the more the merrier", as they say.

For those who have never been on a pub crawl, the event begins in POETS with the few hardcore crawlers who will attempt to complete the crawl from start to finish. Most people join in, as the group moves from bar to bar. Pub crawlers are identified by their T-shirts, which act as their ticket to free food and other deals at each bar. For example, the Voodoo lounge will be providing complementary nachos, and a reserved section with darts and pool.

There is more to a pub crawl than the time in the bars. Moving from pub to pub goes by too fast with good cheer and songs! A few classic and to-be-classic songs are The Lady Godiva Hymn, Used to Work in Chicago, Yogi Bear and Sunshine Mountain. Unfortunately knowing the songs is not enough to join the pub crawl, every pub crawler must wear a T-shirt.

T-shirts are on sale each Wednesday at lunch in the CPH foyer, along with GradComm pizza. The cost of a shirt is \$15, which is a great deal considering the 2006 pub crawls run until next summer! All those A-soc engineers will be at least another term of pub crawls from their purchase. T-Shirts can also be purchased during the pub crawl, so check it out this July 15th!

### Cup Brawl 2005

#### Schedule

##### Friday July 15

12.00 - 4.00 Poets  
4.00 - 5.15 Bomber  
5.30 - 6.30 Kick-Off  
6.30 - 7.30 36  
7.30 - 8.45 Voodoo  
9.00 - 10.00 Ethel's  
10.15 Failte

#### T-shirts

\$15  
Wednesdays CPH

#### Requisite song lyrics:

*Sunshine Mountain*  
We're climbing on the Sunshine Mountain  
Where the little breezes blow  
We're climbing on the Sunshine Mountain  
Faces all aglow  
Turn, turn your back on sorrow  
Reach up to the sky  
We're climbing on the Sunshine Mountain  
You and I.

## Engdating Reprise



It was not so many terms ago (one to be precise) that a humble little article entitled "The Etiquette of Engdating" made its way into the paper. Based mostly off of the standard jokes that circulate in a faculty with a male to female ratio as high as ours, it seemed innocent enough. Even the editors thought that it was just beating a dead horse, and that it would not garner much attention. But the point here is clear: it most certainly did.

In the end, "The Etiquette of Engdating" spawned forth not one or two, but three follow-up articles. "The Upsides to Engdating" appeared only one issue later, spawned forth by a couple of estrogen-enraged 1A Chem girls who took this simple joke a little to close to heart. I mean, considering how engineering is still 90% guys, if half of them were too dumb to get the joke, you'd still have a nice 1-to-4 ratio going in your favour. Following that in the winter term, an intrepid writer brought the battle to B-soc. There he compared the two articles, awarding points for the arguments brought up in each case, and assigned the ladies a 1-point lead, with a +/-1 point margin for error. Basically, he pinned them dead even, but in hopes of saving his after-hours social life, he made a wise move awarding the win to the girls. Lastly, this was followed by "EngMarriage", the tale of a pair of '81 Civs who had found true love during fourth-year project. (I took great amusement in their argument that 75% of EngGirls marry EngGuys, meaning there are...6? Yes, 6 girls in my class for the 90 guys. Whoopie!) This all amused me to a point. That point happened in the cafeteria one day, and went a little something like this.

**Girl**

"Hey... Do I know you?"

**Andrew**

"Umm... I don't think so. Maybe you've mistaken me with someone else?"

**Girl**

"No... wait a minute, you write for the Iron Warrior, don't you?"

**Andrew**

"Why yes, yes I do. It's nice to be recognized for my efforts."

**Girl**

"You wrote that article, the Engdating one, didn't you?"

**Andrew**

"Yes, that was one of my contributions to the paper."

The conversation ended there as I received a tactical slap to the face, and another angry female engineer unable to take a joke stormed away. It was at that point that I decided I would have to revisit the issue, and so here is the story of my date with a female engineer, whose name has been changed to "Sally" in order to protect her identity.

It almost didn't happen to tell the truth. The night of the date, we had some work due, and Sally was expecting to be up later into the night finishing it. Not wanting to ruin the night on such a small issue, I helped her to understand the work in order to finish it in good time. Shortly after it was done, we met ready to go and walked down to the bus. Sadly for us, the bus was missed and we were forced to walk, unable to wave down a cab to catch a ride

to our 7pm movie. Finally we gave in and called two cab companies who raced to our position, and delivered us \$10 later to our film, where we were able to arrive before the previews finished.

We had come to see Batman Begins, and while not expecting much of it, we both enjoyed it. True enough the engineer shone through as throughout the film and after we'd make quiet comments referencing moments in that film to others like Spiderman and Star Wars. Truly engineers at heart we were. Next stop: Voodoo lounge. We arrived and were quickly seated and attended to, ordering some drinks and appetizers to sate our palates. I must admit, again I was most happy to find that the conversation never dropped off into awkward silence, and there was always something to talk about between school, work terms, life on campus and life beforehand.

The final part of an engineer that was thoroughly enjoyed was the party animal that lurks inside, and we found it at our

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*"there will always be ones that will defy odds... to capture our hearts"*

---

final stop: the Bomber. Certainly not the best place for talking, we nonetheless were amused to race to the bottom of her cooler and my pitcher, and even able to enjoy some delicious Liquid Cocaine. From then on until closing, it didn't take much to coax Sally out onto the dance floor. There we enjoyed the ambiance of a drunken sweaty orgy, dancing to the music pounding through our skulls, readying us for the IRS not so far down the road. Finally as the last song ended, it was a short walk to see her home and wish her sweet dreams, ending the date.

Now what myths can I debunk from this? I suppose if after my article last term I was still able to find a willing EngGirl I can say that odds aren't always as bad as they seem, or as I portrayed them in my arguments. I wouldn't try to compare smarts (as the girls shot down 'girls with IQs smaller than cup sizes'), because there are smarts of all kind and I'd hate to count out those artsies just because they can write essays better than reports (and since if we were as smart in all aspects of engineering as we think we are there'd be no need for PDEng). Points were made regarding wallet impact, that artsies would opt for an expensive play or that EngGirls would be able to tank more at the bar. Cheapness is all relative though: if a date with an EngGirl is cheaper, it's just because in your mind she must be cheaper too, right? Also argued was that in-faculty dating might lead to a symbiotic relationship wherein two engineers become one. I think now though that any kind of relationship can choke you or set you free if you let it.

In the end, it's all a matter of choice. Whatever qualities and numbers girls of any group possess, there will always be ones that will defy odds and circumstances to capture our hearts. Hopefully those special girls will be able to take a joke now and then too, for laughter is the one language we all speak. But it still all comes down to one deciding factor: personal choice. I'm sure you can all make the right one for you.

## Disc review duo: Texan Tunes



DAVID YIP  
EDITOR-IN-CHIEF

Know By Heart  
The American Analog Set  
Tiger Style

**Good for:**  
Unwinding after work  
Breezy summer porches with lemonade  
**Bad for:**  
Getting "pumped"  
Anti-repetitionists

Texas. The very word brings up images of pickups sporting gun racks and a variety of shots guns, boots, spurs, and of course, the World's Favourite President. Fortunately, in addition to coming up with the Leader of the Free World, there are also these two unrelated (but good) bands whose discs I'm going to talk about today. Note I've no experience reviewing albums, so...

The American Analog Set has been around for a while - having consistently stuck to their laid-back, chill tunes. Drum set, guitars, and a dash of electronics come together to form what has been categorized as drone rock, dream rock, and ambient rock. Really all of those apply to some extent: "Drone" comes in as repetitiveness is a key feature in Amanset songs - I suspect this is a love-it-or-hate-it musical element. "Ambient" is applicable as the songs are not in-your-face nor pretentious - quite content to play in the background, but also captivating enough to occupy all your attentions you should choose to give them to the songs. Words like "textures" and "delicate" also come to mind.

"Know by Heart" is Amanset's latest full length, after "From Our Living Room to Yours", "Promise of Love", "The Fun

of Watching Fireworks", and "The Golden Band". Though I've coloured my opinions by reading other reviews of "Know by Heart", I tend to agree with them - that "Know By Heart" is probably the best Amanset album, and their most accessible. Note this album isn't new, but then, who cares. Previous Amanset offerings have been less restrained, with the songs being quite long, and quite liberal in repetition that I imagine feels right when you're jamming it out yourself, but takes some measure of patience on the listening side.

"Know By Heart" features succinct, tight songs, with none of the "extended remix" feel of some songs from the previous albums. "Choir Vandals" is the first song that caught my ear; lead singer Andrew Kenny's hushed vocals laid over quiet guitar riffs and drum taps that evoke tranquil, warm, unhurried summer afternoons. We here at school unfortunately don't get a lot of these, but such is life. Or Waterloo engineering, however you take it. The plaintive "The Postman" is the most lyrical song on the album, telling a story of a postman and a lady on his route. A bit like Desperate Housewives, with guitars but no shootings.

Opening track "Punk as fuck" - I can't explain the title, as poetry has never been my strong point, but its closing lyrics "Leave me to die in the comfort of my own home" always seems to mesh well with a sigh and a twist of the ignition to off coming home after a trip home.

Closing track "We're Computerizing and We Just Don't Need You Anymore" is the most dreamy of the dream rock, and "Like Foxes through Fences" is the most rock out of the rock labels that can be applied to this album - almost provoking reflexive hits of air-cymbals. Trivia: Cymbals have been made under the

Zildjian name since 1650! Does Amanset use Zildjian cymbals? Beats me.

Err, anyway, go listen. Well suited towards relaxing drives home, through the country, and other low-key but highly enjoyable activities.

The Earth is Not a Cold Dead Place  
Explosions in the Sky  
Temporary Residence

**Good for:**  
Cheering up cynics.  
Fans of epic quests.  
**Bad for:**  
People with short attention spans.  
People who demand lyrics.

The second part of the disc review duo is "The Earth Is Not A Cold Dead Place" by Explosions in the Sky. Obviously not eager to break with the unwritten "Post-rock bands must have album titles longer than five words" rule, "Earth" is five songs and 45 minutes, though it will make

those 45 minutes pass quickly. It is entirely free of lyrics, sticking to electric guitar plucks, and drum set to put together melodies that I will describe with a shotgun blast of words: Inspiring, wistful, dramatic, melancholy, hopeful. Hope is something we could

all use, especially around here.

It sounds like it could be movie-soundtrack material - indeed Explosions in the Sky was tapped to create most of the soundtrack of the film "Friday Night Lights" - but "Earth" is so full and complex it is practically a cinematic experience in itself. Invest that 45 minutes of attention and you will be richly rewarded. It borderline reminds of me of classical music, albeit played with a highly simplified (but an effective two guitar drums

+ bass) orchestra, and more than once I've found myself waving around the air-baton.

The five songs flow into each other, and each has a vaguely emotive title, such as "The only moment we were alone" and "Memorial". Without lyrics, these titles are the only suggestions to us from Explosions on how to focus our ears. It'd be interesting to see how people would interpret the disc without the titles. The songs themselves are quite melodic, and again, because of their superficial resemblance to movie scores, are quite accessible - you'll find yourself effortlessly drawn to the drama, without the patience or waiting that comes with other epic-type albums. Marching-beat drum attacks construct head-held-high drama, while you follow the guitars' airy lead like a wide-eyed tourist being led by conversing, complementary yet competing guides, each with their own character. They guide you from soaring heights and contemplative lows, and back up again.

"First breath after coma" opens with a instrumental rendition of a hospital heart-beat monitor, which grows into thumping drums to evoke the heartbeat itself. Bright twinkling strings sing as that first breath is taken, which is taken over by a lower melodic line. Dramatic drum rolls come in, as the magnitude of a forgotten life makes itself apparent. Keeping up with the spirited section in "The only moment we were alone" will actually leave you breathless as you come to its end, letting you catch up before it launches uninhibited frantic conclusion.

This is also a just go listen. This is well suited towards listening to music for music's sake. It also works to cheer up the cynic, for your darker moments, when you hate being the pessimist but the idea of playing an obscenely condescending happy songs would just make things worse, give this album shot - it'll walk you out of the woods.

*"Hope is definitely something we could all use, especially around here."*



**Sandford Fleming Foundation**  
E2 3336, ext 4008, [sff@engmail](mailto:sff@engmail)  
[www.eng.uwaterloo.ca/~sff](http://www.eng.uwaterloo.ca/~sff)

### Sandford Fleming Foundation Awards

Twenty one awards were given to students from across engineering at the June 2005 Convocation.

#### Academic Excellence

Christopher Marton, Chemical  
Liam Michael Kelly, Chemical/Environmental  
Melissa Abercromby, Civil  
Heather Mustard, Civil/Environmental  
Hsiao Chien Lin, Computer  
Gordon Chiu, Computer  
Horace Chien Sheng Cheng, Electrical  
Paul Miltenburg, Mechanical  
David Rose, Mechanical  
Cameron Conn-Grant, Systems Design  
Wilkins Chung, Management Science Option

#### Co-operative Proficiency

Shannagh Magee, Chemical  
Andrea Polack, Chemical/Environmental  
Graham Finch, Civil  
Matthew Paznar, Civil  
Lawrence Lam, Computer  
Muris Mujagic, Computer  
Jonathan Westhues, Electrical  
Amor Menezes, Mechanical  
Laura Greaves, Mechanical  
Emily Pomeroy, Systems Design

*Funding for this award comes from your student contributions and depends on it for continuation.*

# Bombin' musical action at TalEng June 28th



RICHARD HUI

Clockwise from top left: Mike "Butch" and Chris "Joneser" singing a tune or two; Chris sings a melody of his own; Aaron sings some classics and throws in a joke or two in between.

## Electrical student goes weightless! Benjamin Sanders to ride the Vomit Comet



CINDY BAO  
4A ELECTRICAL

A two-week trip to Bordeaux, France in July sounds like the dream vacation to many; yet, it would take Benjamin Sanders of 3A electrical class one step closer to his dream of being an astronaut.

Sanders and his three teammates, Farron Blanc from Queens, Meghan Grant from McGill and Jeeshan Chowdhury from the University of Alberta, were selected by the European Space Agency as the finalists of its 8th Annual Student Parabolic Flight program. As the only Canadian team among the thirty student groups who made the cut, they will have the opportunity to ride the "Vomit Comet", a specially-converted passenger plane which is often used for astronaut training. By flying in a roller-coaster-like pattern, the aircraft can simulate short bursts of weightlessness. As the plane crests the top of each parabola and begins a steep descent, everything inside the cabin will float for up to 25 seconds. The participants will experience roughly 60 of these parabolas over the course of two separate flights in mid-July.

While on board, the team will conduct experiment investigating the effect of varying gravitational pull on the human eye in order to better understand how increased ocular pressure can affect one's visual field and the main focus is the possible change in the range of the peripheral vision.

Taken on the flight with them is one of Jarome Iginla's used hockey helmets to

support their head-mounted test apparatus.

Installed inside the helmet are 90 miniature LEDs, through out the front and side. During the experiment, they will be lit one by one from the sides towards the center. As soon as the lights enter the test subject's peripheral vision, the angle will be recorded with great precision. Also mounted in the helmet is a camera recording the eye movement of the subjects, as shifting one's eyeballs will skew the results.

Compared to the previous design of the experiment's setup, which involves two mechanical arms which will swing from the back of the test subject's head sideways towards the front, this simpler version was brought up in a training session and design reviews the team attended in Amsterdam back in April. The earlier design was replaced because the effect of varying gravitational force exerted on the mechanical equipment wasn't well understood and may pose unforeseeable challenges during the experiment.

However, the current design isn't without its own challenges. For example, the helmet must fit all four team members and for each wear, the fitting angle has to be in the exactly the same to ensure the repeatability of the experiment and the reliability of the testing result.

The team plans to carry out their experiment not only in micro gravity conditions from the parabolic descent, but also when the plane is at the bottom of the crest, where the gravity will be roughly twice of that of the earth to collect a wide range of data. Their findings will be presented at the International Astronautical Congress (IAC) in Japan later this year, which is a specially meaningful occasion for its four member who met as a team for the first

time at last year's IAC in Vancouver.

Sanders strongly believes in the importance of space research, pointing out that many work done for or in the space have found earthly applications over the year. He hopes the team's work and subsequent research will shed light on the treatment of glaucoma, a condition where increased pressure due to fluid build up in the eye damages the optic nerve.

Sanders is very excited about what he calls "the chance of a lifetime" and grateful for all of those who helped him to bring it to fruition, including the Dean of Engineering and FEDS who helped to fund the trip. Being a hockey fan, he hopes the helmet used by the captain of Calgary Flames, who made the Stanley Cup play-offs last year, will bring them good luck, not to mention the Canadian spirit.

Flying out around the 20th of July, Sanders will have more exciting experiences from his adventure to share in the next issue. Stay tuned!

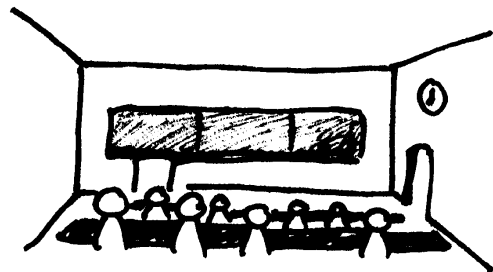
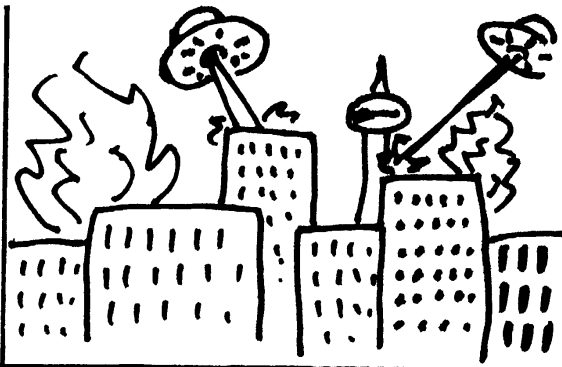


The Vomit Comet is a modified KC-135 tanker. It flies a parabolic flight path, giving 25 seconds of weightlessness. Pictures courtesy John Hopkins University and Asher Langton - University of Wisconsin Madison.

ARTS

JACLYN SHARPE  
1B MECHANICAL

INITIAL REPORTS HAVE  
BEEN CONFIRMED.  
IT IS, IN FACT,  
THE END OF  
THE WORLD



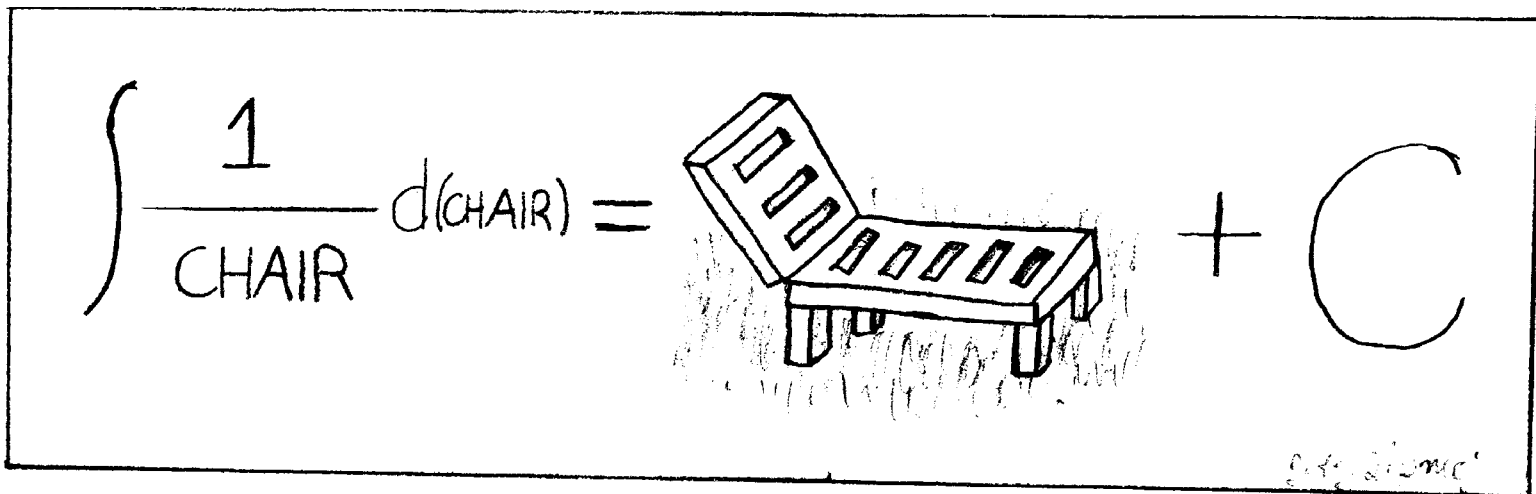
I WONDER WHERE  
ALL THE PROFS  
ARE..



HUH?

Jeffrey Lipnicky

JEFFREY LIPNICKY  
1B MECHANICAL



Ethereal

YUVRAJ GOEL  
1B MECHANICAL

my lovely plastic maiden  
lustrous in lustful ways  
why does she not reveal  
the sorrow of my days

i've seen unending sunset  
in her ethereal eyes  
drops of delightful sadness  
sometimes materialize

why does she so elude me  
with her mysterious stare  
that trickles into the heart  
exuding through the air

my luscious plastic maiden  
she casts her lustful gaze  
my heart will not be stolen  
but she will haunt my days

the Iron Inquisition

Sarah Vandaiyar and Richard Hui, 2B Chemical

If engineering were a food,  
what would it be?



"Sweet chocolate."

- Zain Jessani, 1B Enviro



"German... because there's sausage everywhere."

- Ryan Harris, 3A Chem



"Vinegar and brussel sprouts."

- Ada Zacaj, 3A Elec  
and Matt Ueckermann, 3A Mech



"Rations of sort: All nutrients but doesn't taste good. (Jabba the Hutt would make you eat it.)"

- Peter Yu, 3A Systems



"Something like one of these."

- Mario, 1B Comp



"Cafeteria food... you take your chances... wrong thing... you're screwed!"

- Alex Giroux, 1B Mech



"A pineapple. It's hard and prickly on the outside, with a soft sweet core."

- Dan Pajek, 2B Systems



"Spaghetti & meatballs... delicious meaty gems amid a mess of confusion."

- Chris White, 3A Mech