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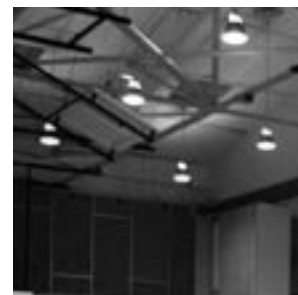
Fear mongering media

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HydroOne strike for the future

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No respect for grads or guests at Convocation

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

## Alternative Fuels Team Wins ChallengeX



Members of the UWAFST pose for their first place overall finish at ChallengeX. Details page 8.

## You don't know jack about money

MARK ALOCILJA  
2N MECHANICAL

*The author nor the Iron Warrior are not responsible for financial disasters that may arise from following the following article.*

So we go to the best university in Canada according to Macleans magazine, but what does that really mean? Does that mean this school produces the best graduates in Canada? The brightest and hardest working? The most knowledgeable? The first two are up for argument, but fact is, we don't produce the most knowledgeable. Then what does the number one university produce? Very specialised people in an extremely narrow field of study, so specialised, we know jack shit about everything else.

You probably feel an Society Technology and Values (STV) smack down lecture coming on, but I'm not here to write about how futile it is to solve problems caused by technology with even more technology. (For example: Hydrogen fuel is really only a energy storage medium and not the fuel of next generation or how things studied in a set time frame and space does not give us enough insight to make the huge global changing decision we make.) No - I'll leave those to the folks of STV 100 and 202 to explain those to you... I'm here to talk more about things that matter to all of us. MONEY.

The matters of money are an important factor in all our lives. It pays your tuition, your food, your booze, your cigars, etc. Name your vice... it pays for it (Or your parents pay for it). Regardless of where we get the money, fact is we need it. Heck, it's roughly 50% of the reason why we take co-op job (sometimes more). So why do we have such little knowledge about something so important to our lives now and in the future? Because OUR school doesn't teach us enough. What do I mean by "money knowledge"? Knowledge on how to use it, how to save it, and how to make money work for us.

Typical cycle: Graduate, find job, and then eat, work, sleep, rinse and repeat as necessary. At the end you collect pensions, RRSPs, etc, and then retire old and decrepit. Now it may not follow in that order per say, but I'd say the majority of the people that graduate will see these steps in various manners. If your lucky enough, you might be able to squeeze a master degree in there, maybe become a manager or something. Good for you. Want out of the cycle? I know I do. So

## Senator's report follow-up



JONATHAN FISHBEIN  
STUDENT SENATOR

This report is a follow-up to my previous report (which I hope you all read) and to sum up what happened at the senate meeting last week. First off, I promised the results of the reading week online survey in this report. The survey question was "The University Senate is currently looking into extending Reading Days for engineering students to a full week without classes.

Currently, engineers have two days off in February, with the remaining three days before the start of exams. Would you like to see the three days off before exams moved to February, giving engineering students a full Reading Week?" Well, 438 students were against the change while 207 students were for it with 30 students abstaining. The main concerns from the comments of the students who were against the change were that the time off was better spent before exams for studying and that they were worried about IRS and when that would take place. Alternatively,

the students who were for the full week wanted to use the time to travel and pointed out that the students who are not from Ontario had no real opportunity to travel back home during the term.

From the results of the survey and the fact that over 66% of engineering students were against the change, I expected to go to the senate meeting and advocate for the status quo. Well, at the meeting the university registrar presented a third

***"a third option where all faculties would receive a full [reading] week off and ... days off before finals"***

option where all faculties would receive a full week off and from 3 to 5 days off before finals. Considering that new information was presented at the meeting, senate deferred making a decision on the reading week issue to, at the earliest, the

September senate meeting.

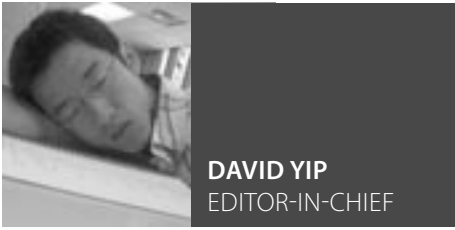
Considering this solution seems to be the best of both worlds and a fair compromise proposed by the university, I plan to support this proposal as it stands. I'll be spending the next 2 months gathering more information on the proposal and consulting with all of you to solidify my position for the September meeting, but I suspect most engineering students will support this new change. If I'm horribly mistaken, drop me a line at [jfishbei@engmail.uwaterloo.ca](mailto:jfishbei@engmail.uwaterloo.ca) and let me know just how wrong I am!

Another piece of information relevant to engineering students brought forward at senate was that engineering convocation will be split into to ceremonies in future years. The reason for this split is that engineering has grown much too big for one convocation ceremony, with the single convocation ceremony running more than three hours long. Splitting the convocation into two ceremonies, one in the morning of one day and one in the afternoon of the same day, will bring the ceremony down to under two hours and much more bearable.

Well that's all I got for this issue. If there are any question or general comments about senate related things feel free to forward them my way!

*Continued on page 4, see Money*

# Letter from the Editor: CDs are costly.



DAVID YIP  
EDITOR-IN-CHIEF

June 7th saw the release of Coldplay's heavily anticipated third album - X&Y. Metacritic.com tabulated the web's authoritative views on music and came up with a 69: Generally favourable reviews.

Blender and E! Online gushed their praises for the group's faultless melodic rock, giving solid 100s for the disc, where Paste Magazine proclaimed "Coldplay is a band with the audacity to aspire to greatness and the talent to achieve it." High praise indeed. Pulling down that average was the New York Times with a scorching rating of "20" in the article "The Case Against Coldplay" - summed up as "The grandiose, calculated self-pity of the decade's most insufferable band."

Point is, in the world of pop music, it was no minor event. Everyone was after a copy, and when everyone is after a copy, there are two options. The first is hit up a bricks-and-mortar store to buy the disc - noting that bricks-and-mortar stores work better when demand is low.

The other is to hit up your favourite filesharing protocol, which, conveniently enough, work better when demand is high. One of the primary issues with this method is the moral aspect - despite the fact that filesharing in Canada is not entirely illegal yet, at the end of the day you are benefiting from something that you did not pay for. Even if you can silence your inner Jiminy Cricket, sometimes the threat is external: "Dave, if you didn't buy that album I'm not talking to you anymore!" she said.

Anyway this leaves us digitally enabled folk in a bit of a moral quandary. I'm going to guess from observation that mp3 players are rapidly eclipsing the CD player as the preferred portable audio device. Buying a CD would mean going to the store, buying the CD, ripping the tracks to computer, and then uploading them to the player of choice. Not that this is a particular arduous task (Unless some fancy copy protection is used) but essentially we are forced to pay for a chunk of plastic and a booklet that we'll never use again, in addition the costs of shipping and distributing the CD to said bricks-and-mortar store. This is a bit like ordering a garden salad but only eating the lettuce.

The recording industry has not exactly wised up to this sad situation. Half-hearted attempts at online music distribution such as puretracks.com, the iTunes music store, and Napster may solve the mp3 conversion and travel problem, but at prices of \$0.99 a track, it still works out to the same price as a buying a the disc with album art. Pay more, get less? I don't think so. Their policy of suing people and massive antipiracy ads essentially trying to play up the moral card are more or less falling on deaf ears. Knowing that the music industry is rolling in cash, that they're suing people, that they're demonizing their own customers for being thieves, it's hard to feel bad sometimes for sticking it to the man. Let's not forget that five years ago, labels Sony, Universal, EMI, TimeWarner and BMG settled with the US Federal Trade Commission on allegations of price fixing, where the Federal Trade Commission estimated that consumers had paid \$480 million dollars more than the fair price of CDs in the United States over the three years prior to the settlement. And yet we feel the needed that the artist should be compensated for their work, and hence the quandary.

Solutions! I've done some ruminating over this, mostly thinking about the digital distribution aspect. Since we are not paying for moving and manufacturing CDs, songs should be cheaper. Especially since they're overpriced to begin with anyway. I would pay maybe \$0.25 for a song that is high quality, undistorted, and not Hilary Duff masqueraded as The Postal Service. I am not fully convinced that people would still rather wait around for days to download an album that may have terrible quality and not be what they were looking for in the first place, just for the sake of beeing free.

Next is to of course make CDs cheaper. A CD is anywhere from \$11.99 to \$24.99 at least - that's borderline DVD territory. Though most my songs are in mp3, it's still nice (If it's cheap enough) to see what the actual disc looks like, and let's face it, it's far easier to show off your impeccable music taste by a casually engineered placement of CDs in your room, than it is to - oh I don't know, leave your screenless iPod shuffle playing on full blast so that you music can be heard through your white earbuds. So I am not against buying CDs, and I am against being extorted for them.

Wynn Quon, a technology analyst reminds me of one of my major gripes with CDs in is article the "Jackboot Paradox":

"There's no better symbol of record company lethargy than the super-fragile CD jewel case, something which has been around for decades but is surely one of the worst consumer packaging designs ever conceived." Yes! CDs, digitally perfect recording, will last forever as long as they remain relatively unscratched, but yet their cases will crack at the merest pressure, will develop a dull scratchy finish over the years, and of course, those two infernal tabs that act as a pathetic excuse for a hinge. Is it even possible to extract the liner notes from a CD case with destroying the edge of the notes themselves?

More enlightened minds have noted that the analogue aspect is really what's lacking. Digital filesharing makes it easy to steal, but as long as prices are unfair, as classical economics predicts, a black market will be created. Whether this black market is massive P2P networks or some dude selling burned copies for \$5, it is still a response to an unfair market. "ghjm" writes on the blog kuro5hin.org: "So what about people who download and listen to unpaid-for music? These people are certainly breaking the law and must accept the associated risks, but they are not morally in the wrong. They simply represent points on the demand curve that the RIAA member companies have chosen not to sell to because they are not "sufficiently" profitable. The RIAA may shed crocodile tears over the loss of revenue from this segment of their market, but in the end it is their own decision not to sell to these people."

Ha! Perhaps no moral qualms after all, solved by the wonderful Adam Smith and his economics. Let's take this to the point of hyperbole: If bread were \$300 instead of \$3 a loaf, would you steal it? Come on Coldplay, do the Right Thing and start your own label - then we can all listen to music guilt-free without having been robbed in the process.

#### Cost of a CD: (From cbc.ca)

4% is retailer profit  
7% is label profit  
9% is manufacturing costs  
12% is artist and songwriting payments  
12% is record company distribution, sales & overhead costs  
13% is promotion and marketing costs  
19% is recording, video and production costs  
24% is retail store costs

PS: This issue was NOT made on a Mac, and I couldn't be happier.

## IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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Hey My Dearest LowRider,

I'm an arts girls who never enjoyed reading that much, until I somehow picked up a copy of the Iron Warrior. Let me just say your skills have kept my spirits high, especially when things aren't going that great.

I really really enjoy your column!! and after seeing all the other fan mail you have gotten, I was sure you wouldn't mind getting one more from me.

I would love to get to know you better. ;)

Katie  
=^.=

p.s.: reply if you wanna see a picture of me

Dear Artsy Fartsy,

So your an arts girls eh? Very nice. How do you manage yourselves? What exactly do you have two of? You really can never have enough. Two arts girls in one eh? We rarely see females over in Engineering let alone find a two-for-one bargain. 2 is better than 1 and 3 is better than 2 and so on to infinity. Rare is your breed.



Phat.

Or is it possible that your only one arts chick but your spelling sucks so much that you spelled girl with an s on the end. That's disappointing. I thought you slackers were good at English and Painting and Acting and Geography and stuff. Send your picture. Maybe you can even be the LowRider Groupy Fan Club Chicks President. Now put that on a resume...

\_LR\_

Dear Mr. LowRider,

Rumour on the street is that you are terrible in bed. I was walking down the hallway the other day and heard these cute girls saying that you were hung like a chipmunk. I think they had first hand knowledge. I'm not really sure what that means could you please describe that for me. What is it like to be unlike Weef and not well endowed? Most Engineers do not have your "condition". Did your mother tell you "it is alright to be different" because apparently those ladies don't agree with you. They also were challenging your libido saying that you were more interested in watching the Price is Right re-runs and were always amazed when you could guess the right prices. I think that this love for Bob might stem from your poor performance in the sack with these lovely ladies who call themselves your fan club. Maybe some self-esteem classes or hiding in a hole would help you to overcome this addiction.

Sincerely,

Sexual "Harris"ment

Dear Macho-Macho Man,

"hunglikeachipmunk" pronounced ("im'go[nn]a-kick{your}-as's")  
(adapted from Webster's Dictionary of BS)

VERB NOUN:

a. The state of being equipped with male genitalia with proportion and efficiency similar to that of Nutsy (x-reference: Nutsy: Chipmunk hung like horse in POETS)

You got a problem with Bob? Or maybe your mad because someone tried to blow you're chipmunk off with some firecrackers. I'm sure Alvin, Simon & Theodore get more action than everyone in chem combined. By the way, those girls walking down the hallway didn't happen to be your mom, sister and girlfriend were they? ZING

I could go on but I think the bloodshed should stop now.

\_LR\_

Dear LowRyder,

What's up bro? How's it going? That's amazing. I just got this new game for my PlayStation man. It's called Grand Theft Auto. It's perfect! You go around stealing cars and doing missions and stuff. Perfect. You can even take your ryde to the chop shop and mod that shit. You can do 10 x nitrous and bounce around on hyrdos. Wanna come over and sit on the couch all day and play it with me? Perfect. Amazing. I can even show you my liberator...

The Kid

Dear WarCraft,

Congratulations. You are now officially a fourth year with your five day weekends. I've heard you can't fail fourth year civil. You know why? Because you've got the concrete for the push and the rebar for the pull or some shit like that. I'm planning on doing my PhD in REBAR by the way. You know it.

\_LR\_

Dear Bandana Boy,

Where do they keep the TOOL any-

ways? I've only seen it during frosh week, and I think it deserves a lot more attention. For goodness sakes, the Mathies put their Log right in the middle of MC--we should be proud to show them what we got!

As LowRider, I think you have the responsibility to make the Eng faculty shine. What happened to doing all the fun stuff like stealing mascots from other faculties? Show us U DA MAN!

Later,

Fellow Eng

P.S. What is with your obsession with everything that has a V and a W?

Dear Patriotic UW Engineer,

I'm glad to see someone likes the TOOL. I haven't seen that thing in ages. Maybe there is someone out there that knows something about that sixty inch piece of sex... Why don't you get in touch with those bearer guys that randomly show up places? Give 'em a call.

Log? Why would anyone want a stupid log unless your a damn lumber jack? All you can do with a log is climb it or roll it or burn it. Useless. I thought their mascot was a pink thong or something. I forget. Just go ask Fish or another random softie.

One million bonus LowRidin' points if you steal UofPee's cannon.

\_LR\_

P.S.

V and W mean nothing apart. But together my good man... Perfect Harmony \X/

Dear LowRider,

Remember me sweetheart? Why don't you reply to my messages? I've attached some sensual photos of myself. You need to come to the next Architecture party...

Love,  
Vanessa the Archie

Dear Vanessa,

Score.

\_LR\_

'till next time keep it low kids.

## Convocation shows little respect for graduates and guests

CHRIS BARDON  
01 SYSTEMS ALUMNUS

On Saturday, June 11, 2005, I attended the Engineering Convocation ceremonies at the University of Waterloo, where my wife, Emma Bardon, received her BAsC in Mechanical Engineering. As an alumnus myself (SYDE BAsC 2001 and MASc 2003), I was quite familiar with what to expect, even though this would be the first time I had experienced convocation from the audience's perspective.

The ceremonies proceeded as expected, with the procession, speeches, and finally the awarding of degrees. Just before Emma received her degree, I made my way down to the photography area to get some pictures, at which point I noticed that there were more empty seats in the bleachers than there were when I came in. Supposing that this might have something to do with the throng of people crowding in to get pictures in the corner, I didn't think much of it, until I noticed the large numbers of graduates milling around outside as I made my way back to my seat. Once back inside, I realized that there were several empty seats among the graduates

that had already received their degrees. I sat and watched as grads left the stage and, rather than proceeding back to their seats, walked right out the back door. By the time the PhDs were being conferred, at least 80 percent of the graduates had left the building.

To say that I was disappointed in the behaviour of these newly minted "professionals" is an understatement. Not only does this show a complete lack of respect for the University and their fellow graduates, but it shows that they are ill prepared for the world around them. While their technical skills may be beyond reproach, their behaviour at Convocation showed that most of the graduates lack the basic common sense and decency that our society expects. If this is indicative of their attitude, then these graduates will make very poor Engineers. I am sure that those in attendance on Saturday who are in a position to hire these new graduates came away from the ceremonies with a new perspective on Waterloo Engineering graduates, and I would not be surprised to learn that someone had altered their recruiting strategy based on what they saw. After all, if graduates show that little respect towards

their school and their peers, then what does that say about their attitude towards their work and their employer?

While the students' behaviour was rude and tactless, they are not alone in their blame. Ever since my own Convocation in 2001, I have maintained that the University of Waterloo shows little to no respect not only for its students, but for their friends and families attending the Convocation ceremonies as well. I did not realize how substandard Waterloo was in this regard until I had the opportunity to attend convocations at other Universities. Both McMaster University and the University of Toronto held their Convocations in large, comfortable auditoriums (Hamilton Place and Convocation Hall respectively), with ample seating for guests. In contrast, Waterloo holds their convocation in a gymnasium, with guests, many of whom are senior citizens, seated on uncomfortable, difficult to climb wooden bleachers with no back support. Strangely enough, the level of decorum at all of these ceremonies mirrored the venue. Not a single graduate left early at either of the other convocations I have attended, and I have been told that those who attempt to leave

are promptly returned to their seats by ushers. To add insult to injury, those who did remain at Waterloo's Convocation were unable to hear most of what was being said onstage, due to poor acoustics, and the constant babble of those in the audience, who were paying little to no attention to what was happening. What sort of message does it send to a student and his family when after four and a half years, countless hours of work, and tens of thousands of dollars, he receives his degree underneath a basketball net with his family watching from hard wooden bleachers? What sort of impression of the University are attendees left with? Is this the best that Waterloo can offer its graduates?

One of the things the University of Waterloo prides itself on is its reputation. In its short life, Waterloo has become a

*Continued on page 4, see Convocation*

**Editor's Note:** This article was originally written as a letter to David Johnston, President of the University.

# Money management: Live in freedom!

*Continued from cover.*

what can one do? Make money work for you. Because of the nature of how the curriculum is set up – applies to all faculties, even business – we are never taught how to make money work for us. And how do you make money work for us? Build assets.

The word asset has many meaning due to its improper use, but for simplicity sake, an asset is something that *generates money on a continual basis*, whether that is weeks, months, or year. This means, that contrary to popular belief, a house, car, your computer, that digital camera or even that new iPod you bought, are NOT assets. Why? Because they do not GENERATE money. They give you some money if you sell them, but assets generate money while you possess them. These things are liabilities.

Then what are assets you ask? Stocks, bonds, real estates, businesses, etc. In fact, anything can be an asset, as long as it generates money on a continual basis. Here's a creative one I've looked into and would like to share. When you graduate, instead of mortgaging a house, condo, or whatever, just rent. The money you would have put towards your mortgaging, paid in property tax, renovating/fixing up, etc could be put towards a bond. The money saved every month, can be put towards increasing capital in the bond. In a nutshell, your return will offset the rent you have to pay, thus making your cost of living much smaller than that of what you would be paying if you're mortgaged. This works well in markets with booming

home market (GTA) and even applies to people who already own a house. Sell your house; invest the money you get from it, and rent. Instantly you'll be spending less on living, and in most cases, you can afford to live in places much better than what you currently have while spending less. This is an example of one of the many ways you can make money, in this case, growing an asset - a bond - while affording to live in a nice house. I don't have to go any further than pointing at the people at your co-op jobs to find example



A sweet ride: Easier than you might think.

of people stuck in a continuous cycle of paying their mortgage, their cars, etc. We should work to live, not live to work.

I may scoff at the notion of our university being #1 in Canada, but I do believe that we have very bright people here, that or you wouldn't be still reading this article. Why not use your smarts, your problem solving skills to come up with new types or assets. I know it's easier said than done, but this is not your fault... and once again lies in the fault of our school system - we don't have enough knowledge to start.

Go out and learn. Break out of the mould; learn some investing, business, marketing, and accounting. Take some courses on a co-op, take extra CSE, read books. A popular book on the insight of how to make money work for you and why you should, pick up "Rich dad, poor dad", it's an easy read, and it's an excellent starting point. If you want the lowdown on investing, pick up "The intelligent investor" by Benjamin Graham. He basically wrote the book on investing, a system or thought and rules on investing that has made Warren Buffet a rich man. If you don't know who Warren Buffet is, he happens to be the 2nd richest man in America, making his fortune all in the market.

So in the end what will the knowledge of making money work for you do? Well, it can make your wealthy. What I mean by wealthy is; not having to work a job that pays a huge salary and working somewhere that pays less, has work that interests you, and is less stressful because you can AFFORD TO. It means quitting your job so that you can work at a company that is willing to train you in a new field, instead of paying for it yourself or stagnating in one job. It means taking vacation when YOU want to, whether or not your company pays for it. It means buying a BMW 745i rather than baseline 325i without you to work for it, but having your assets work for it. It means freedom, to do anything, something which money can't buy, but can come a long way helping you get there, as long as you know how to use it.

Questions? [Unit2501@rogers.com](mailto:Unit2501@rogers.com)

# Convocation

*Continued from page 3*

world class centre for Engineering education, and has produced graduates that are both technically savvy and ahead of many of their peers professionally. There is very little that is extraordinary about the undergraduate academic content at Waterloo: other schools have very similar programs that teach nearly identical material (one of the consequences of an accreditation-based program). Instead, it was the Co-op aspect of Waterloo's Engineering program that set it apart. When Waterloo graduates were entering the work force with two years worth of experience, it became known that they knew how to operate in the "real world." If what I saw on Saturday is, as I have come to suspect, part of a larger trend, then Waterloo's reputation is in serious danger. Some very important people witnessed the same thing that I did at Convocation, including the founder and President of Research in Motion (and UW Chancellor), Mike Lazaridis, the founder and CEO of Qualcomm, Dr. Irwin Mark Jacobs, and the chief engineer for Atomic Energy of Canada, Basma Shalaby. Reputations can be destroyed just as easily as they are created, and while I can only speculate, I'm quite sure that all of these individuals were left with a diminished opinion of Waterloo graduates after Saturday.

As a proud Waterloo alumnus, I've found it very difficult to write this letter. I know that the education I received at Waterloo was excellent, and my experiences there have served me well in the intervening years. I can only hope that something will be done in the near future to reverse this alarming trend.

**Fun in the Sun at Fed Hall!**

# SUMMERFEST 2

# Foam Party!

**Saturday July 9**

**Outdoor Foam Party**  
**Outdoor Swimming Pool**

**\$6.00 feds/\$8.00 non-feds**  
**Doors open at 9pm**

All Ages  
For UW Students  
19+ QUESTS

Fed Hall

## POINT VS. COUNTERPOINT

# Hydrogen Economy: Fact or Fiction?

**ANDRE BELTEMPO**  
4A MECHANICAL

Firstly, let's get a couple of things squared away. Hydrogen is NOT a replacement for oil, nor should we treat it as such. Hydrogen is the smallest atom in the universe, and is fairly reactive, so it is not generally found on the Earth in its pure form. Fortunately it's abundant, so we can find it in many things, such as hydrocarbons and water. Unfortunately, when the time comes to extract that hydrogen back into its pure form, then we need to expend energy to do so. Regardless of how we do it, this step will require an input of energy. This energy input usually is fairly significant. Oil is what is called a 'primary' energy source, meaning that we find it in nature, and then we burn it and get energy. Although extraction and distillation steps require energy, bituminous sands and shales aside, more energy is generated from one barrel of oil than is required to extract it. That leaves a plus on the energy balance sheet, and that extra 'plus' is what adds energy and hence power into our economy. If it takes more energy to extract the oil than we get out of it, then we tend not to do it. The additional step to convert the hydrogen back to its pure form requires a significant energy input that is not required in the current energy infrastructure, and immediately introduces an additional process and attendant inefficiency to the energy cycle. That means additional energy will be lost simply to get the hydrogen, and once hydrogen is actually separated another problem occurs: storage. Hydrogen, as mentioned, is the smallest atom in the universe, and at room temperature it exists in the gaseous phase. Since it is of such low density, it is essential that it be concentrated to increase the energy density, either by compressing the gas, liquefying the hydrogen, or a bit of both. The problem with both these methodologies is that they require more energy to initiate and sustain, add another process to the cycle, creating additional losses, and introduce another level of complexity. Liquid hydrogen would need to be kept below its boiling point of 33 K, requiring parasitic cooling energy requirements and heavy insulation. Gaseous compressed hydrogen requires heavy compression due to its inherent low density, again imposing parasitic energy requirements. Even if someone invents an extremely innovative way of 'fixing' the hydrogen in a reliable storage medium (some people mention a kind of porous media, like a foam) it will never be as easy to store as liquid gasoline in a tank.

But the final point about hydrogen is the most damning, and the most difficult to contend with. Returning to the original point: hydrogen is a CARRIER of energy, meaning we have to expend energy to MAKE it, as opposed to finding it in nature. The two major sources are: hydrocarbons, which we're trying to avoid to begin with, and water. Let's assume we're not trying to

burn more hydrocarbons, so let's stick with water. So, let's examine the actual energy requirements for the generation of hydrogen. In 2002, the Province of Ontario consumed 695.392 Petajoules of energy for transport alone. That's the equivalent of a constant demand of 22050.7 MW of power, when in the same year, the peak energy demand for electricity in the Province was only 25000 MW. What does that mean? Assuming, for the sake of argument, that all of the end losses discussed above were zero, and that electricity could somehow be converted at 100% efficiency into hydrogen, to simply generate the hydrogen required to drive our transportation sector would take 88% of Ontario's total PEAK electrical generation capacity running for a year. Assuming that we aren't just moving pollution around, and are trying to avoid any nasty 'thermal' power plants, the only viable 'zero-emission' electrical producers are Nuclear and Wind power. Examining nuclear power, we would need to build, at minimum, 25 Third Generation CANDU reactors (equivalent to each of Darlington's) and run them flat out to do it. It takes almost 10 years to commission a nuclear reactor and costs billions of dollars; Darlington took almost 15 years. How about wind power? Assuming that each turbine is the size of the one at OPG Pickering (one of North America's largest), generating 1.8 MW continuously (not likely), then we'd need to build 12251 wind turbines (Denmark has about 5800 and took 25 years to do it). Again, remember, we're assuming that there are no losses at the front end (i.e. that the nuclear/wind power is 100% efficient and operates at full capacity without fail constantly), that no additional energy is lost in generation, that no additional energy is required to process the hydrogen for storage (We would need to convert 22 billion joules of electrical power into hydrogen every second, remember), and lastly, that the energy required by the transportation sector does not increase yearly (it does).

Even if a combination of nuclear, wind, solar, biomass, geothermal and any other exotic power generation scheme were required, we're still faced by the fact that to generate hydrogen for transportation only, we would need to literally double Ontario's total electrical generation capacity in a really short time frame. The capital expenditure required to do anything of the kind would, in all seriousness, require at least several tens of billions of dollars of investment in the largest expansion of electrical generation capacity in the history of the province. Of course, this would also require a similar dramatic and sweeping retooling of the automotive, aerospace and petrochemical industries, which is outside the scope of this article.

In conclusion, any claim that hydrogen is a panacea near-term replacement for oil is pure bunk. Hydrogen replacing oil in what, 10 years? Don't make me laugh. Personally, when the oil runs out, I intend to take horseback riding lessons.

**PATRICK BROWN**  
4A MECHANICAL

With all of the screaming and wailing in the news about rising oil prices, there are people who have begun hopping on the train labelled "I told you so". The reason that so many are doing this now is because there have been energy technologies in development for decades that can replace your standard, run of the mill internal combustion engine.

One such technology that hasn't gotten nearly the attention it deserves is the hydrogen fuel cell. The advantages of a fuel cell are quite noticeable. It combines hydrogen and oxygen with efficiency as high as eighty-five percent. Looking at a standard car engine, the best efficiency you can hope for is around sixty percent.

One thing that does throw off the numbers a bit is the fact that fuel cells produce electricity. You would need to convert that to mechanical motion for a car, of course. The thing is, taking that into consideration; the efficiency can still run into the mid-seventies, as electric motors have very high efficiencies. Converting all that gas burning into motion reduces the efficiency of a car even more.

There is another big advantage to fuel cells. It's a wonderful thing called emissions. Cars today pump out a large cocktail of compounds into the atmosphere; sulphates, nitrides, carbon monoxide and dioxide, to name a few. Hydrogen fuel cells dump out only one thing: an evil compound called dihydrogen oxide. Water. That's about it.

There is one potential disadvantage to hydrogen power. It only limits our dependence on fossil fuels; it doesn't remove it. Currently, the only major viable source for the hydrogen used to make fuel cells run is methane. Methane is the major component of natural gas. The formation of hydrogen from methane has a relatively good energy cost. The problem will be when methane runs out here on earth.

There is another major source of

hydrogen on earth. I think I mentioned it before. It's called water. The only problem is that the energy cost of removing hydrogen from water by electrolysis is the same as the energy gained from a fuel cell. This means that we are limited to using natural gas for the foreseeable future.

The good thing is that with proper consumption, the foreseeable future is pretty good. The reason I say this is that I am about to pull a very dirty trick on the hydrogen nay-sayers.

Another hydrogen energy technology is in research right now. It's called fusion. Fusion is a nuclear power source that, as yet, is not successful. It is also very powerful. Just look at the sun. The energy possibilities become endless once we develop sustainable fusion power sources. The thing about fusion is that it allows us to use

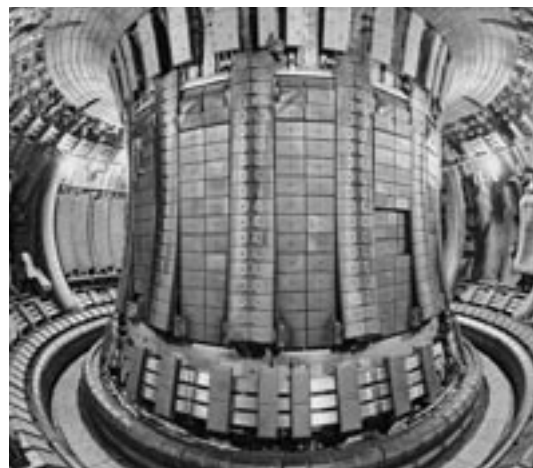
water as our source for hydrogen. The energy cost of electrolysis is much lower than the gains from fusion, resulting in a very large net gain.

Once people realize the vast possibilities of the proper development of the right technologies, our energy problems will be a fair bit easier to deal with. The common element to these is hydrogen, pardon the pun.

There are a few more sources of power using hydrogen, but they are currently more in the realm of science fiction. These are the deposits of hydrogen in its various forms in our solar system.

There are planets, moons and asteroids with large methane deposits, but no way to get to them yet. But I'm keeping my hopes up.

*"Once people realize the vast possibilities of the proper development of the right technologies, our energy problems will be a fair bit easier to deal with."*



Fusion reactor. Fusion will make everything all right.

**Editor's Note:**

The views and opinions expressed here do not necessarily reflect those of the authors, the Iron Warrior, or the Engineering Society.

### Upcoming Events from EngSoc

Sun July 3	Mon July 4	Tue July 5	Wed July 6	Thu July 7	Fri July 8	Sat July 9	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>
	Music week	EWB General Meeting DC1302 5.30p	WEEF Proposal Presentation 5:30p RCH 302		Enginuity	Rafting trip	
July 10	July 11	July 12	July 13	July 14	July 15	July 16	
			Engsoc Meeting 5.30p CPH 3385		Architecture play See article for details	Architecture play Semiformal! (Poets)	

## ENGINEERING SOCIETY EXECUTIVE REPORTS

## EngSoc Carnival!



**NICK LAWLER**  
PRESIDENT

Hey everyone, hope that you're term is going well, as we enter into the last half of the spring 2005 session. I know work is piling up, and we all have very busy schedules, but the Engineering Society provides lots of opportunities for you to let loose and relax a bit this summer. Specifically, we have the Canada Day Celebrations this Canada Day at Columbia Ice Fields. Every year the Engineering Society helps to run the Universities Celebrations, and we always run one of the biggest and most fun activities, the EngSoc Carnival. The Carnival features a giant water slide, a dunk tank, and many more interesting activities for some of the thousands of children that come out during the day. We need vol-

unteers to make this happen, so come out, or email [julyone@engmail](mailto:julyone@engmail) and let them know you are interested. When the sun sets, the University provides one of the biggest fireworks shows in the area, and it is always a blast!

Plans for new blinds in POETS is coming along, we are now waiting for final approval from Plant Ops and the University Architect on prices and final plans. These new blinds will be installed by the end of the year, and have been partly paid for by the graduating class of 2005. You may have noticed some new pictures and rearrangement of shirts in POETS, this is all part of the joint society plan to give the space a little face lift, and it up a bit. Look for more new stuff on the walls as we get it. If you have any pictures you would like hung in POETS, please let me, or the B-Soc Prez, Karim know.

That's it for now folks, have a great few weeks, and get out there and enjoy the summer!

## New things in Novelties!



**SABRINA GIOVINAZZO**  
VP FINANCE

At the last EngSoc meeting the budget was passed and now everyone knows exactly how much they have to spend. If you can't remember how much you have, there's copies of the budget in the orifice or on the website. I'll be sending around e-mails to keep directors updated on how much they've been spending and how much they have left in their budgets.

Donation proposals will be taking place at the next meeting, Wednesday June 29th.

Depending on when this paper comes out, hopefully you requested money and came to the meeting! If not, there'll be an update on the website for everyone.

For those of you who don't know, Novelties has so many great things to buy! Plus, we've got in so many more NEW things (thanks to Mary who is so awesome!) so make sure you come in and check out all our great stuff on your lunch! If you ever have an idea for something new that you'd like to have in Novelties, either talk to me, one of the directors or Mary and we'll work to get it in!

Other than that, not much more to say. Make sure you get your expense forms in so you can get reimbursed. I'm around everyday and will get you your money back fast!

## WEEF: Business As Usual

**KATHERINE CHIANG**  
WEEF DIRECTOR

Hope everyone's well rested and surviving midterms (among other things). It's Canada Day! Lighten up!

Just a couple of quick updates. The first is proposals. Proposal deadline had come and passed, thanks to all those who submitted one. Proposal presentation meetings is happening July 6th, in RCH 302 at 5:30pm. All of the proposals MUST be presented, and presentations will have a time limit, depending on how many there are.

The funding council meeting had also been scheduled for July 20th, same time, same place. WEEF reps for each class MUST attend this one, as we will be debating and voting over funding amounts for the term.

Last but not least, bylaws! This past January, the Board of Directors met to discuss the old and seriously out-dated WEEF bylaw. Some examples of changes that were made:

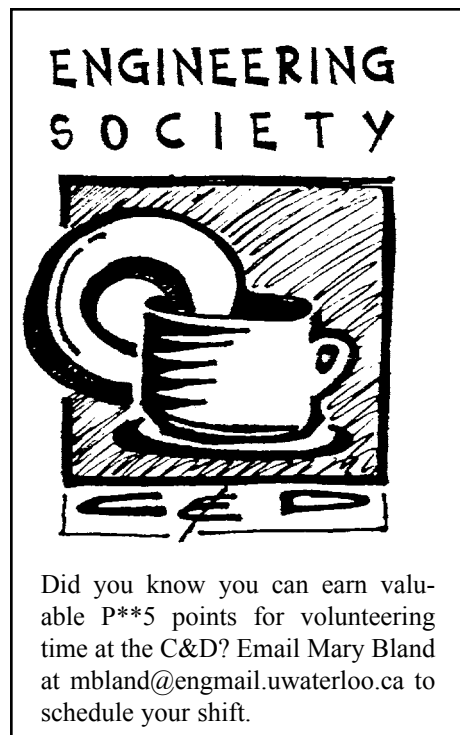
- available funding per year will be decided every winter term at the Board of Directors meeting, based on the financial statement issued by the university.
- the responsibilities of the WEEF director is updated
- a new section regarding the Annual General Meeting was added
- some clarification of terms and sub-

sections, as well as minor changes.

The bylaw was ratified by Funding Council last week, and will be available on the website as soon as possible. A big thanks to all of the reps that attended.

Did I say that the stats will be in this issue? Well, I tried, but overwhelming amount of work in 4A and 3 midterms got in the way. I promise I'll have it for the next one ;)

That's it for now, until next time.



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.

## Getting wet and course critiques



**MELINDA HURD**  
VP EDUCATION

HELLO! I hope everyone survived their midterms and enjoyed (responsibly...) the parties that followed! For those of you that were matched with a job in the first phase of Jobmine, Congrats! For the rest of us, especially those who missed the second round of resume critiques, our resume critique director Kathryn Pomeroy has graciously extended resume critique services via email ([kempomer@engmail.uwaterloo.ca](mailto:kempomer@engmail.uwaterloo.ca)).

In other news, the Dean's Office wants to hear from you!! That's right; Course Critiques and Debt Load Surveys will begin circulating in a classroom near you in the weeks to come! Class reps - take note of the following important dates:

JUNE 30th: Pick up Debt Load Surveys from your class mailbox in the Orifice

JULY 4th: Course Critiques begin in class - drop off all forms in the Orifice after each class

JULY 8th: Drop off Debt Load Surveys in the box provided in the Orifice

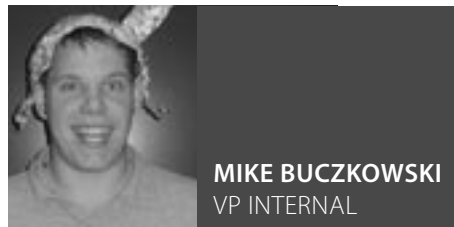
JULY 15th: All Course Critiques should be completed and forms dropped of in the Orifice

Please return all forms - those filled out and those left blank - to the Orifice by the posted deadlines. If you have any concerns/questions email me!

The results of the Debt Load Surveys will be published in the final Iron Warrior issue - you may find that you're not the only student in debt! Also, the course critique results will be available on the Engsoc online course critique service next term. Your responses to these surveys are taken seriously by the Dean's office - take this opportunity to let them know how you feel about your professors and your financial situation by taking the time to respond honestly.

Otherwise, enjoy your long weekend! For all of us staying Waterloo, I challenge you to try your luck at the dunk tank - get me wet on Canada Day! Party on.

## I am Iron Man!



**MIKE BUCZKOWSKI**  
VP INTERNAL

I am Iron Man!

Alright guys and gals, it's time to rally the troops. There is an exciting couple weeks coming up shortly and y'all haven't heard from me in quite some time. First Thanks to everyone who came out to A\*\*5 Bowling, MOT, and Tal-Eng! All three were awesome and tons of fun as usual.

What's coming up you might ask? So much it will blow your freaking mind! #1) Engsoc Whitewater rafting trip to Ottawa, see the posters, sign up at the Orifice it is an amazing deal! #2) MUSIC week. Like Music? A variety of music being played and musical activities will be taking place in the POETS area from July 4-9, be there or don't claim to be a music

fan. #3) CANADA DAY, love Canada? I know I do help out by volunteering or just come out and enjoy the fireworks and festivities at the CIF!

P\*\*5: I'd just like to say that I'm proud that Bond. Chemical Bond was winning the P\*\*5 at MOT, with two other ChemEng classes in second and third so if the rest of engineering could maybe try to dethrone the ultimate department that would be appreciated... although we know you don't have it in you.

Other than that I'd just like to state that I arrived back in Waterloo at 6:00am Monday morning after a 27 hour marathon to Washington D.C. to see the sights. We left 12:30pm Saturday and returned this morning. It was astounding, we got souvenir shirts, tried to by a gun, played mini-golf in Maryland, bought some illegal fireworks and set them off beside the interstate, only had 1 birth certificate for five guys yet still crossed the border, and visited a sketchy porno store. I never want to drive for like a week! We are insane!

## Architects perform play!

**ELISA JANSEN**  
2B ARCHITECTURE

*Editor's note: Holy moly Batman! Something from our compatriots down south!*

Every year, the 2B class of the school of architecture puts on a play as part of their course requirements.

Well, we are doing it again this year! Except this year, we want our new faculty to know about it, and maybe to come enjoy it with us! The play is entitled "The Complete Works of William Shakespeare - Abridged", it is a condensed comedy version of all of Shakespeare's plays rolled into one. It should be a lot of fun.

The play will run both Friday July 15th and Saturday July 16th, near our new campus in Cambridge at 200 Water St North, the Galt Collegiate Institute. So here's a great excuse to get to know those crazy

architecture students, and what they do.

Come join us if you can! For tickets you can email [elisajansen@yahoo.ca](mailto:elisajansen@yahoo.ca) or [carmenallisonlau@hotmail.com](mailto:carmenallisonlau@hotmail.com).

Or alternatively, just show up... both shows start at 7:00pm, and tickets will be sold at the door.



# Engineers get political: Maintaining self-regulation

**BILL O'KEEFE**  
PHD CHEMICAL

On June 6, 2005 I, along with about 100 other delegates from Professional Engineers Ontario (PEO), attended a meeting at Queen's Park in Toronto to meet with members of Provincial Parliament in order to discuss the role of PEO in the development of government policy. Specifically, we are concerned about proposed legislation that is, in the view of PEO, a clear incursion on our mandate under the Professional Engineers Act. For those engineering students who are perhaps more junior and not familiar with PEO I will first provide some background information before I explain PEO's recent initiatives.

Presumably, if you are reading the Iron Warrior, you are an engineering student who aspires to become an engineer. Here's the deal. If you want to practice medicine, graduating from medical school is not enough. You need to complete a residency that lasts from 2 to 7 years and then pass an exam in order to earn a license to practice medicine. If you wish to practice law, a law degree is not enough. After graduating from law school, you need to article for 12 months with a practicing lawyer and then pass the bar exam before qualifying for a license to practice law. I think you can see where I am going with this. In Ontario, an engineering degree is not enough to give you the right to practice engineering. After graduation, you must complete a 4 year internship and pass the professional practice examination (PPE) before you may qualify for a license to practice engineering. It is illegal under the Professional Engineers Act to practice engineering or to use the title "engineer" or any other derivative (e.g. process engineer, project engineer) that would lead one to believe you are an engineer if you do not have a license issued by PEO. The maximum fine for a first offence is \$25,000 and up to 1 year imprisonment. I consulted PEO's website for a recent example: On June 10, 2005 a Toronto man, Mr. Mohammad Hafeez, was sentenced to 30 days in jail and fined \$19,863.81 for falsely misrepresenting himself as an

"engineer" and as a "structural engineer" while working on construction projects in the GTA. PEO is serious about misuse of the "Engineer" title and has set up a hotline that you can call to report offenders. (416-224-9528 x1444).

The Professional Engineers Act was created to serve and protect the public interest. As a consequence of this legislation, the practice of engineering is closed to the public. The purpose of licensing is to protect the public from unqualified and unscrupulous practitioners. A licensed Professional Engineer can be readily identified by the designation "P. Eng." PEO consists of the 64,000 licensed Professional Engineers in Ontario. However, PEO is far more than an association of professionals. In Ontario, Engineering is a "self-regulating" profession. This means that the practice of engineering is regulated by PEO and not by the government. Self regulation is a consequence of the realization by past governments that engineers have unique knowledge and expertise in certain matters that surpasses that of the government. PEO has been granted powers under the Professional Engineers Act to establish maintain and develop the standards of engineering knowledge and skill and as well as professional ethics. PEO has been given the mandate to set the standards of qualification and the standards of practice and is also responsible for the licensing of engineers and enforcement of the Act including the prosecution of offenders and discipline of members.

In 2003, the Building Code Statute Law Amendment Act was filed (Bill 124). This proposed legislation established new mandatory qualification standards for building officials and designers including engineers. Civil and mechanical engineers are most affected by this legislation. When this legislation takes effect, engineers will have to pass written examinations that will test their knowledge of the Ontario Building Code (OBC). On the surface this seems like a reasonable step to protect the public. PEO does not object to this legislation because we are concerned about having to write these exams or have to pay the expensive fees associated with

them. Rather, it is a deeper principle. It is the position of PEO that this proposed legislation is a clear encroachment on our mandate under the Professional Engineers Act. As explained above, it is PEO that has the mandate to set technical standards and to regulate the practice of professional engineering. Requiring engineers to write exams to test their knowledge of the OBC is a particular slap in the face since engineers are already required by law to know the relevant codes and are considered incompetent if they do not. An engineer is guilty of, and can be prosecuted for, professional misconduct under the Professional Engineers Act, Reg 941 72(2)(d) for "failure to make responsible provision for complying with the applicable statutes, regulations, standards, codes, by-laws and rules in connection with the work being undertaken by or under the responsibility of the practitioner." It is PEO's position that there is no evidence to suggest that the P. Eng. license has failed to protect the public in matters regarding the OBC.

Architects are also affected by Bill 124 and have agreed to implement a parallel system of code testing for architects by architects. However, the majority of architects now believe this move to be a mistake citing increased controls and bureaucracy created at the expense of architects, the end result being only to tarnish the reputation of their profession. PEO had originally considered a parallel system but since June 2004 has taken the solid position that under no circumstances will a parallel system of testing be adopted by PEO since this will only lead to duplication and increased costs and will not achieve the results intended by the proposed legislation. It is PEO's position that passing an exam on the OBC does not demonstrate competency and that the public interest is best protected by utilizing licensed Professional Engineers competently applying the OBC while undertaking engineering projects. PEO is fully prepared to use its regulatory powers to address any problems identified. However, very few of PEO's annual complaints are related to the OBC.

PEO has applied pressure on the

provincial government establishing a "Government Communications Program" now consisting of about 100 official PEO spokespersons including myself and directed by the communications firm of Brown and Cohen Communications and Public Affairs Inc. Through this initiative, PEO has started a grassroots campaign to engage MPPs at the local level. Pressure from PEO has resulted in the delay of the implementation of The Building Code Statute Amendment Act (Bill 124/02), which was supposed to be implemented July 1, 2005, to January 1, 2006. Our meeting at Queens Park on June 6, 2005 was a huge success with about half of the members of parliament attending the meeting. The meeting was both constructive and exceedingly amicable. Speeches made by the Attorney General Hon. Michael Bryant and other MPPs confirmed that the government acknowledges both PEO's important role in protecting the public and the importance of PEO's self regulation. Many subsequent meetings with MPPs have been scheduled since this event.

PEO's government communications program is not a one-off thing. The program will be maintained indefinitely in order to raise the profile of engineering in the province of Ontario and to increase the role of Engineers in the development of government policy. If you wish to get more involved with your profession, there are several things you can do. First, if you have not already done so, register in the Engineering Intern Training (EIT) program. This will allow you to get involved with local engineering chapters. They are always looking for volunteers. Once a registered member of PEO, you should also become a member of the Ontario Society of Professional Engineers (OSPE). This is the advocacy group that defends the interests of professional engineers in Ontario. The regulatory group (PEO) and advocacy group (OSPE) have been kept separate in order to avoid a conflict of interest. Lastly, if you are a civil or mechanical engineering student who may end up working in the construction sector, you should read up on Bill 124 and write to your MPP to express your opinion on the issue.

## Hydro One strike for the future

**JEFF EMMETT**  
2N ELECTRICAL

Nearly 1,000 Hydro One employees – primarily consisting of technical and professional engineers – are officially on strike beginning June 6, after a one day walkout and work-to-rule had little effect on upper management. One of three unions in the corporation, the Society of Energy Professionals, refused the new contract offered by Hydro One at the end of April by a whopping 95% 'NO' vote, and an agreement has not been reached since. Why should we pay more attention to this strike than other labour situations? It affects us more than you'd think.

The Society is a union of employees including supervisors, engineers, scientists, and accountants who work with the Ontario power grid, indirectly for the most part. They are the people who design safe and reliable transmission systems, carry out fault analysis on blackouts within the province, calculate settings for protection devices in the power grid, and even investigate physical faults in the system, to name a few tasks. While they have little

direct effect on the Ontario power system, they perform vital administrative and technical work for the company.

In an attempt to cut costs, upper management has decided to prey on new hires within the Society, where most of us engineers would end up if we pursued a career with Hydro One. Included in the new contract is a 10% salary reduction for new employees, plus a reduction in pension and benefits. Also included in the contract is an attempt to increase the workweek from 35 to 39 hours (which most engineers end up working to get the job done anyway) which works out to a 25 day extension in the work year with no compensation. There will be a typical 3%

salary increase per year in merit pay for three years. Keep in mind that the CEO of Hydro One recently received a 35% pay hike to a \$1.5 million annual salary. How's that for cutting costs? Society spokes-

man Brian Robinson says it best: "If you want to cost-cut, you should lead by example."

This is the first ever strike situation that has involved the Society, since in the past a third party

arbitrator has always been present to solve any contract disputes. However, this year upper management decided to forego the use of third party negotiation, and instead demanded that the Society accept the contract without concession, which eventually led to the current strike situation.

Management has developed a "robust contingency plan" to deal with the striking union, which involves bringing higher management down into the roles of their absent subordinates. Unfortunately, we have already seen exactly how "robust" the plan is, with a province-wide power blip occurring on May 27th, caused by mismanagement on the part of a replacement supervisor.

Being a co-op student with access to internal media releases, I have witnessed upper management's attempts to calm the striking Hydro employees by reminding them that currently employed engineers will not be affected by the contract amendments. It will be the next generation of Hydro One engineers that will feel the burn. Thankfully, the Society will not stand by and allow this unfair two-tier pay system to be implemented, for our benefit and their own. So next time you hear about the striking engineers at Hydro One, don't cast a disparaging eye on people you might think are only out for a pay raise, and remember, they're looking out for our future too.



It's not always about a pay raise.



# UWAFT Wins Year One of ChallengeX

UWAFT PRESS RELEASE  
IW NEWS SERVICE

A Canadian vision of the vehicle of the future has taken top honours at a North American competition in Detroit. A team of University of Waterloo engineering students -- the only Canadian team in the competition -- beat out 16 other top U.S. universities to win first place overall at Challenge X (in year one of the three year competition) for their fuel-cell-powered vehicle design.

The team, sponsored by Natural Resources Canada and Hydrogenics Corporation, was the only one to use fuel cells for vehicle propulsion in their design to improve fuel economy and reduce greenhouse gas emissions. "This is an incredible accomplishment and I extend my warmest congratulations to these students for their innovative and award-winning vehicle design that uses the latest in hydrogen and fuel-cell technology," said John Efford, Minister of Natural Resources Canada. "We can all share in their success as Canada continues to set new levels of achievement in greener automotive technologies that will be essential in building a cleaner energy future for Canada."

"The outstanding performance of the University of Waterloo is a feather in the cap for the Canadian hydrogen and fuel cell industry," said Pierre Rivard, President and CEO of Hydrogenics Corporation. "The ability and skill of these students to develop a program the North American stage. All of us at GM Canada salute the University of Waterloo team's major achievement and we look forward to more success from these remarkable students in the years ahead."

The University of Waterloo team will receive a new 2005 Chevrolet Equinox and a total cash prize of \$19,500 US. In addition to winning first place overall in this first year of the Challenge X competi-



UWAFT captain Matthew Stevens drives a simulation of the team's design for the 2005 Chevy Equinox. The simulation includes the full powertrain. The fuel cell itself is mounted on a tilt table to simulate orientation changes while driving. For safety reasons, the fuel cell is installed in another room during the simulation.

tion, the team also won awards in the following categories:

- \* Outstanding Web Site
- \* Outstanding Outreach
- \* Freescale Semiconductor -- Silicon on the Move
- \* The Mathworks Crossover to Model Based Design
- \* Best Project Initiation Approval Presentation
- \* Best Control Strategy Presentation
- \* Best Technical Presentation

- \* Best Written Reports (3rd place)
- \* National Instruments Most Innovative Use of Virtual Instrumentation for Control Design and Simulation (3rd place)

Challenge X is a three-year competition sponsored by General Motors Corporation and the U.S. Department of Energy. It focuses on the re-engineering of a General Motors (GM) crossover sport utility vehicle. The four-day event at GM

University, held last week, marked the end of the first year of the competition. Years two and three of the competition will be held at the end of the 2006 and 2007 academic years to showcase the teams' learning and vehicle development from year to year.

For additional information about the Challenge X competition, please visit [www.challengex.org](http://www.challengex.org) and <http://uwaft.uwaterloo.ca>.

**Sandford Fleming Foundation**  
**E2 3322, ext 4008, [sff@engmail](mailto:sff@engmail)**  
**[www.eng.uwaterloo.ca/~sff](http://www.eng.uwaterloo.ca/~sff)**

## SPRING 2005 TECHNICAL SPEAKER COMPETITION RESULTS

### FIRST PRIZE

Jeff Wentworth, Electrical and Computer Engineering  
"Three UARTs, One Small FPGA"

### OTHER COMPETITORS

Dave Kadylak, Mechanical Engineering  
"MEMS Probe Rotator Motor"

Kathryn Pomeroy, Chemical Engineering  
"Bitterness Analysis: Tradition VS Innovation"

Jaska van Leeuwen, Civil Engineering  
"A Greater Toronto Airports Authority Business Case Analysis: Fire Alarm System Monitoring"

Rishi Lukka, Systems Design Engineering  
"Equivalent Square – Bone or Blessing"

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## SANDFORD FLEMING DEBATES

The Sandford Fleming Debates will be held from 11:30 – 1:00 on July 4, 5, and 6 in E2 Room 3324 with finals on July 8 at noon outside POETS in CPH.

*Funding for these awards comes from engineering student contributions and depends on them for continuation*

# The newest threat to our lives! Fear in the media



ANDRE BELTEMPO  
4A MECHANICAL

Although it is more important than ever to be well informed about the goings on around us, and following the news is a sure way to have a better opinion about the greater significance of things besides those which are immediately in front of us, I've noticed a disturbing trend even in the short span of time that I have had to watch, read and hear news. The media, although of obvious use, have lapsed into a disturbingly corporate and profit hungry mode of thinking, where the primary driver behind journalism is no longer simply 'informing people' and 'getting the story'. Rather, the newer journalism is one of sensationalist, gripping, 15 second fear-mongering, which tends to attract and encourage short attention spans, the right of an 'opinion' to weigh as heavily as fact and for fear to permeate every conceivable activity ever covered. Fear is, indeed, the key to the whole enterprise. After the advent of 24 hour news, the requirement to fill the extra broadcast time time sparked all kinds of imaginative attempts, but all roads, inexorably, led to the need to rivet the viewer. Therefore, the search became not one of truly relevant, so called 'serious' issues that required complicated explanations, but instead ones where preferably all that was required was a sentence or two, which would grab the requisite attention. Lines such as 'sniper stalks area', 'Workmen crushed, '28 burned to death', 'killer chemicals' and so on, do not require much further exposition, and lend themselves to wonderfully well orchestrated soundbites. A special focus has been made of late on all of the myriad studies showing the trillion and one ways in which we can reduce our life expectancy by three seconds. The saturation point for this drivel was reached in 1991, but the public remains constantly bombarded with pointlessly trivial threats to their existence that only serve to provoke fear, cynicism and total apathy in the viewer/reader/listener.

If a cross-section of a year's worth of media reports about the ongoing threats to one's health and welfare were taken with the seriousness and resources that the media uses to propagate them, then we should all have died repeatedly by now. For example, just a few of the media reported ongoing threats to my life are: Terrorism, Cancer from everything I eat, touch, breathe and approach, West Nile, Mad Cow, Drinking

Water, Obesity, Violent Crime, Polluted Air, Unsafe Transportation, AIDS, World Oil Depletion, Extreme Weather, Global Warming, processed food, pesticide filled fruits and vegetables, Lead/Mercury and other poisoning, asteroids, nuclear war and regular war. In addition to these direct threats to my life, I must also fear threats to my general welfare: job insecurity, unlikelihood of successful marriage, rising prices, identity theft, unscrupulous politicians, rising taxes, rising food/gas/education/power and real estate costs, higher rates of diabetes, heart disease, depression, ADD, ADHD, lower literacy, less privacy, less green space, more power outages and less chance of making it to tomorrow. With odds like these, it looks like every day we live is an exercise in avoiding a menagerie of imagined horrors, and that each day we go forward is into a slough of despondency. The media positively thrives on meting out this type of negative stupidity, and we positively love taking it in, convincing ourselves that no one has had it this bad, that kids these days ARE getting worse, that the 80's were the good old days, etc. . . What has actually transpired is that the media have made a 24/7 business on selling us fear, and we've become masters of fear consumption. Last year, the threat of the West Nile virus was touted as 'the worst ever'. How many people were affected by West Nile? 500? 1000? More people were injured last year falling down the stairs. Are stairs, then, to be the new 'threat of the day'? Producing an informative 15 minute exposé on the true threat of West Nile is out of the question, instead we get shown a 15 second shot of mosquitos, breeding in ponds, and people in the hospital, or possibly someone who was directly affected. Although this may serve to stimulate the basic emotional fear response, a more level-headed analysis of the potential threat to one's welfare is in order.

The administration of President Bush has been accused of using terrorism as another fear factor, but the sad truth of the matter is that they too, have simply been reacting to the constant state of fear running through the U.S. The U.S. Congress signed for \$80 Billion for the continuing 'war on terror'. They too, have been totally brainwashed into believing that a person living in the Western World today, in 2005 is the least safe that they have ever been. As have we all.

The notion that someone living today, in 2005, anywhere in the World is less safe than ever before is absolute bull shit.

The truth is that for the last 150 years, every single indicator of health,

wellness, life expectancy, job security and safety, has increased, in fact, has continued to increase every year since the industrial revolution. The truth is that cars today are safer and cleaner than ones built 1, 10 or 100 years ago, the truth is that health care is better than it was 1, 10 or 100 years ago, the truth is that the global life expectancy has increased, even for people in what we call the third world.

The truth is that our society, today, is the safest society ever, in the history of mankind, with organized emergency services, sanitation, safety systems, bureaucracies dedicated for safety and environmental protection, better freedom and mobility, better government and better lives.

In fact, we've become so good at building safe structures, efficient health systems and competent bureaucracies, that the media need to – and regularly do – pull out all the stops to inflame a 'crisis', real or perceived. The SARS outbreak was certainly a situation, and did indicate areas where we could improve, but what no one seems to have understood is that, at the end of the day, the outbreak was contained, and very few people were actually sick. Yet according to the media, this outbreak could have become like the legendary great Spanish Influenza of 1918, wiping out millions. Again, the true story, one of health workers putting everything on the line and succeeding in the face of a heretofore unknown virus, were able to stop it's global spread in less than 6 months. That's friggin' fantastic. The fact that we were able to accomplish that speaks volumes. Of course we could've done better, we always can, but it could have been far worse. The media doesn't stop on reporting the things that do happen, and blowing them out of proportion, instead, if there is no immediate threat, then one is dutifully manufactured, as the next greatest threat to humankind, as we've been told time and again, is Avian Flu. This virus HAS NOT even mutated yet, and although experts should be concerned about it, blasting the message from the heavens that we MIGHT be infected by a potential virus mutation sometime in the future is absolutely stupid. That is the media equivalent of telling people never to cross the street because they might get struck by a bus. The fact that we are told the tiniest details of how many

chickens are killed in North Vietnam on a daily basis to safeguard ourselves shows the monumental obsessiveness about safety that has been placed on the average person's life. Somehow, this reporting is more of a threat to us individually than the continual starving millions in the world, of whom 20,000 die every day, or of those suffering from AIDS, or tuberculosis, or malaria, or other preventable conditions. However, these things are not immediate threats to us in Canada, and receive little attention. The fact that poultry in South-East Asia might affect me personally in an imagined future is more important, apparently, than the present and ongoing deaths of millions.

The sad result of the media fear frenzy is that terrible tragedies, such as those of Sept 11th, are not given proper perspective, and in fact, are blown out of

proportion until the entire western world lives in a perpetual state of fear, hoping that tomorrow will bring solace. Terrorism is indeed a threat to life, but it should be no more an everyday worry than choking to death on your dinner. The modern day threat of terrorism, although present, is still less than the threat of Nuclear destruction during the Cold War. Today, the absolute worse case scenario would be terrorists detonating a nuclear device in a major U.S. city. 20 years ago, the worse case scenario was that every city of over 25,000 people north of Mexico would be struck by 2 nuclear weapons EACH. Regardless of what the 'terrorism special reports' on CNN would have you believe, the former is still a LOT better than the latter. Yet how many reports focus on that fact alone? The fact that we've actually made progress?

The constant lurching from one totally imagined 'crisis' to another has left everyone with very little time to truly address the important long-term issues which we should be continually striving to resolve. Instead of devoting ourselves in our free time to actually improving the human condition, we have become so afraid of everything, including action, that we resort to extreme escapism, hiding in TV, video games, drinking, drugs, sex, books, anything, any distraction at all to run away

*Continued on page 11, see Media*

## Bar Food Review: McGinnis FrontRow

JONATHAN NG  
6N COMPUTER

McGinnis FrontRow  
160 University Avenue West  
519-886-6490

Every Tuesday, McGinnis Frontrow has half price appetizers on their menu. It's a great way to arrange a gathering with a big group of people, as you can order a lot of appetizers and drinks. I have done so with the people on my floor when I was in UW Place, and also as part of the Society of International Students, which have a pub night on Tuesdays and other events as well.

The atmosphere in Frontrow is very sports oriented. There's a big room called the locker room where various sports

equipment is kept, and there are many TVs stationed around the place where you can watch sports events, although there isn't much hockey playing nowadays because of the NHL strike. There are also crayons which you can use to draw on the sheets of paper on your table, allowing you to keep yourselves entertained while your food and drinks arrive.

As for the appetizers themselves, the appetizers I have most often are the veggie quesadillas and the veggie nachos - so take note, vegetarians. The veggie nacho plate is huge, and feature lots of nachos with oodles of cheese, tomatoes and beans! The

plate that carries the sour cream and salsa is also made of a giant nachos, so that's convenient when you're extra hungry. The

quesadillas are pita-like pockets with a lot of cheese and vegetables, and they're really gooey. There's also 4 or 5 quesadillas in a serving so you can be full with one plate. There are also appetizers on the menu; I've tried bruschetta bread and mozzarella sticks,

which aren't bad if you're in a mood for something other than nachos.

Overall, I'd say it's decent, and the food will fill you up very nicely.

*"oodles of cheese, tomatoes, and beans!"*

## 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!

## A whole lotta shakin' going on



KIRAN DHALIWAL  
4A ELECTRICAL

If you have Google News as your homepage like I do, you'll know that Katie Holmes is engaged to Tom Cruise, that Katie Holmes is adopting Scientology, that Katie Holmes likes eating crackers and that for the past two weeks Katie Holmes has probably been in the news more often than Bush, Kofi Annan, the Pope and Karla Homolka combined. At least it's a break from headlining news regarding Angelina Jolie and Brad Pitt playing house. If you happened to refresh your browser at just the right time however, you may have known that California's been hit by at least 5 earthquakes last week. This of course, leads to the question, "What can be done about this?" and of course, "How can we protect Katie Holmes?"

The first thing I would suggest is a vast interstate early warning system that would be linked to every cell phone in the vicinity of a predicted tremor. This would finally create a good use for those annoying ringtones that manage to go off at the climax of a good movie, during the punchline of your best jokes or while you're too busy driving five miles to get to the corner 7/11. Of course, the ringtone would have to be one that incites enough terror to provoke evacuation. (I think you know what comes next, but in the spirit of Canadian pride I'll save Celine Dion's career from my witty onslaught). Since the notion of using a phone like my monotone, monochrome Nokia 3360 would be ludicrous in a state where you'll find better technology in a McDonald's Happy Meal toy, everyone could get real time video of the impending tsunami streamed right to the palm of their hands. CNN would undoubtedly have a vested interest in developing this system, in order to send updates of the latest celebrity trial of national importance.

Another defensive measure Californians can take against these unwelcome earth-

quakes, is to further develop an existing form of homeland protection; the "Gated Community." Have you ever been inside one of these things? Of course not, since a retinal scan and DNA sample would prove that you're not one of the chosen few who get the privilege of paying \$3000 a month for an unfurnished bachelor's pad and 5 heated pools at your disposal. Nonetheless, since these gated communities are so effective at keeping people out, a revolution in home design would surely see the advent of "Gated Domes". Never again would a 50 metre-high wave be able to pay you a visit without written consent and 48 hour advance security clearance.

In the end, preventative and defensive measures may make no difference at all. Much like Republican popularity, the ground along the West Coast is sinking steadily every year. Based on extensive research (by which I mean an urban legend), California is destined to share the same fate as Atlantis in becoming an underwater world of splendour. Ironically, this would probably only increase the property value of any scrap of coastal land that sinks down. Representatives from Disney would surely swim over with a bid to turn your little castle into the next underwater ghost town theme park. An underwater world of overpriced swimwear boutiques, Hummer-brand submarines, tanning salons and heated pools would quickly arise. When that day comes, the society of tummy-tucked and silicon-enhanced bathing suit bodies will surely seize the day.

The laid-back, tree-hugging and beach-faring California of music and motion picture fame will always exist in the memories and video cabinets of millions. The real question is whether the state will sink into the ocean literally or figuratively first. This isn't to say that there's anything wrong with change, or the California of the 21st century. The field of earthquake survival can only mean more prospective opportunities for the next generation of engineers, business people and architects. After all, according to the latest update on Google News, Katie Holmes can't do it all herself!

## Imagineering! Students finalists in Disney contest

UW NEWS RELEASE  
IW NEWS SERVICE

For a University of Waterloo student team, the creation of an interactive virtual motion theatre ride is their ticket to the world of Disney.

The four Systems Design Engineering students, Bonny Lau, Eric Lee, Jenny Yeung and Erin Yu, make up one of three teams of undergraduate students selected as finalists in the Walt Disney Imagi-Nations Design Competition. The teams will travel to Disney headquarters in Glendale, Calif. to present their designs to a panel of judges.

"We are leaving for California on June 9 and will be participating in various events at Disneyland on the week of June 13, including the presentation of our project to the Disney executives," Yu said.

Their entry named DIVA -- Disney Interactive Virtual Adventure -- was part of an eight-month, final-year design workshop project supervised by Management Sciences Prof. Tom Carey and Electrical and Computer Engineering Prof. Rob Gorbet.

The project "employs various motion-tracking and image-processing technologies to allow visitors to navigate through a virtual space using body motions," Yu said. "It is designed to encourage social interactions among the visitors as they must cooperate with each other to steer the vehicle and fight the villains.

"In addition to extensive research in the areas of motion platforms and immersion techniques, the project combines various methodologies such as theme-park

attraction design, multi-player video game design and user-centred design. The team has also implemented an animation in the first-person perspective as an example of what the audience will experience while on the ride," Yu said.

Waterloo is beginning to forge a reputation as a strong competitor in the Disney design contest.

Two years ago, Systems Design Engineering students Munira Jessa, Analene Go and Kimberly Tuck took top prize in the Imagi-Nations competition with their "Monsters Inc. Training Facility Ride."

Today, Analene (Go) Belanger is a Disney software engineer -- and one of the Disney reps who recently travelled to UW to break the good news to this year's team.

Disney Imagi-Nations competition is an annual design competition sponsored by Disney Imagineering to invite undergraduate students from all over the world to design original theme

park attractions.

It enables students to showcase their talents and gain practical knowledge in design, with the opportunity to earn scholarship money and internships.

"Imagineering" is a Disney word that combines imagination with engineering.

Imagineers are responsible for the creation and expansion of all elements at the Disney theme parks and resorts. They include more than 140 disciplines such as artists, architects, engineers, writers, machinists, landscape designers, model makers, sound technicians, carpenters, producers, accountants, filmmakers, schedulers and estimators.

## Disc review duo: Coldplay / Black Eyed Peas



ANDREW DODDS  
1B MECHANICAL

Coldplay - X&Y  
Capitol / EMI

Black Eyed Peas - Monkey Business  
A&M / Universal

It's been a while since I've actually gone out to buy a CD. Nothing too exciting has come up, and I make enough trips outside of Resnet's grasp to pick up any singles that are a worthy addition to my iPod. However, June 7th, despite having an interview and just getting into midterm nightmares, I took a long and boilingly hot walk down to HMV and picked up two new CDs: X&Y, Coldplay's follow-up to A Rush of Blood to the Head, and the latest creation of the Black Eyed Peas, Monkey Business.

First, Coldplay's X&Y. After two CDs, Britain's darlings were breakout far beyond the small island's shores. Parachutes caught our attention with curious piano melodies that have been long since lost in the world of Guitar Guitar Bass Drums.

A Rush of Blood to the Head only took it up a notch further. It dove into our minds with haunting lyrics such as those from the title track, and chilled us to the bone with such memorable music as that found in the radio golden boy that is Clocks. These two collection essentials left us with impossible standards for the next edition rivalled only by George Lucas's cinematic creations.

While the appeal for their first two albums should have been nearly universal, the case is not so for X&Y. When you listen to Chris sing and pay attention to his words, he's gone from telling touching stories to feeling like a mother chiding a child. As much money as you have, most people won't be able to get around what seems like a "holier-than-thou" attitude. Listening to the melodies now, we've lost that cornerstone piano, which has taken a backseat to solo guitar. You could still be the original doing that, but you can't be the Coldplay we knew and loved. Now when I listen, I seem to hear more of U2 or the Beatles bleeding through, but I guess you have to stick to your heritage sometimes.

That said, I enjoyed X&Y. Whenever Chris would piss me off, I'd focus on the song of the instruments, and that is still something that the group can work beautifully. For all my criticisms, I couldn't stop listening to the album night after night as I

fell to sleep. It wasn't so hot the first time, but with each spin it grew on me a little more. It may not be for everyone or even for some diehard Coldplay fans, but it is still a CD worth checking out if you've ever liked anything British.

Now, on to the Black Eyed Peas latest: Monkey Business. Originally the group came from many different walks of life and for a few albums it was just the three men, Will-i-am, Apl-D and Taboo felt much like most Hip-hop artists, only there were three of them instead of just a solo Kanye. Many of their tracks on their most popular trio album Bridging the Gap involved some featured artist, such as Macy Gray. But it wasn't until they added this year's MMVA darling Fergie and brought us Elephunk that the group really hit the big times with their club favourite hits including Hey Mama and Let's Get Retarded (commissioned politically correctly as Let's Get it Started for pro basketball ads). Once again, another group felt like taking a different turn.

Monkey Business travels back trying to relive the golden days of Bridging the Gap. Gone are the club tunes, replaced with more of a car-groove feel collection with the style of darker hip-hop at its roots. Mind you it's still hard to mistake the Black Eyed Peas with any other hip-hop group. Don't Phunk with my Heart, which

certainly connects with any teen to twenty-something woman will undoubtedly find itself on the radio and in clubs for a long time. The rest all have the groove appropriate for chilling in a pimped-out ride. Gone are the bump-and-grind-tastic choruses of Elephunk, and back to the almost beat-box-like repeated sounds found throughout hip-hop. Nonetheless, you won't find a more parent-pleasing collection of hip-hop out there. If you were a fan of what the three boys could do before they got oestrogenated, or you're looking for something inoffensive but still technically hip-hop, then you might be interested. The grooves are still there; you just won't hear them while grinding in a club.

So in the end with this latest selection, we notice the uncertainty of groups. Unwilling to risk staying the same and getting old, they venture off in new directions in order to keep us guessing. Innovation is always key to success in our engineering ordeals, but when you run too far from what got you on top in the first place in the music industry, you risk a lot. When you keep your audience guessing as to what you'll come out with next, and keep them guessing whether or not they'll like it, it's not a good combination. While not for everyone, both these CDs should find their way happily into many a collection, just not as many as before.

# Howl's Moving Castle: Not very moving



CINDY BAO  
4A ELECTRICAL

## Howl's Moving Castle

Distributed by Walt Disney Pictures  
Directed by Hayao Miyazaki

For Hayao Miyazaki, the announcement of his retirement is followed by one and then another animated feature. Not that we fans complain, given how *Spirited Away* in 2001 took Japan by storm and charmed the rest of the world. Nor will we miss out on the latest release of *Howl's Moving Castle*.

Adapted from Diana Wynne Jones's novel by the same title, the story is set in what looks like 19th Century Europe,

while the countries that engaged in the warfare employ plenty of aircrafts. Our 19-year-old protagonist Sophie works in a hat shop. After a meet-cute moment with the handsome wizard Howl, she was subsequently turned into a 90-year-old granny by the Witch of the Waste Land. Trying to break the curse, Sophie left home and moved into Howl's castle as a cleaning lady.

The rest unfolds slowly and I must confess that I do not fully grasp the story, as the characters seem to have some inexplicable motives. However, haven't read the original novel, I do not know where to attribute this problem.

Miyazaki's long time fan will recognize some familiar elements seen from his previous films. It's a world of magic, much like *Spirited Away*, in both the sense that it involves witchcrafts and the fictional setting provokes some of the child-like wonders in all of us. The char-

acters do not make wisecracks, the recent trend in North American animated movies, but charming in an entirely restrained manner.

Yet, at the same time, many of the director's trademarks are missing from this film. Sophie is the embodiment of an array of ideal feminine gender roles – gentle, innocent, nurturing. However, compared to the heroines for whom Miyazaki is so widely known, such as San from *Princess Mononoke* and Nausicaa from *Valley of the Wind*, she lacks the distinctive feisty nature and does not made an impression. As for Howl, a troubled soul with great power, (where have I seen that before?) offers little likability. He begins as a spoiled brat and the transformation that followed is hardly convincing.

Perhaps I have set my standards for this movie too high, but for a master like Miyazaki, I have seen better.

## Karla Homolka release: Has justice been served?



ANDREW DODDS  
1B MECHANICAL

Every day, everyday criminals finish their prison terms, and having paid their debt in full to society, they are released back into the public to try to live normal crime-free lives. However, Karla Homolka is neither an everyday criminal, nor someone who has paid her debt in full to society. Sometime between June 30th and July 4th, she will be released back into the general public of Montreal, Quebec. To date, she has received many offers from people in the form of a place to stay, an arranged apartment. These offers come from men and women and couples of all ages, including a single mother offering space for Homolka to stay with her and her child. Has the world gone mad? Here is a reminder for those of you too young to remember of why the words Karla Homolka are synonymous with evil.

October 17th, 1987. A 17 year old Karla Homolka meets a 23 year old Paul Bernardo, the Scarborough Rapist, in a restaurant in the town that is his namesake. A mere two hours later they're having sex in their hotel

room. Two years later they get engaged. The next year, they drug Karla's younger sister Tammy with Valium, and Bernardo is able to rape her for about a minute before she starts to wake up. A few months later that year they drug her with animal tranquilizer. This time they both rape her together. She chokes on her own vomit and dies, and her death is ruled an accident.

June 14th, 1991, Bernardo and Homolka share in the rape of 14-year old Leslie Mahaffy. June 29th, on their wedding, Mahaffy's dismembered body is found in concrete in a lake near their St. Catharines home. April 16th of the following year, they are dumping Kristen French's naked body in a ditch after kidnapping, raping, torturing and killing her together as a couple. January 1993 Bernardo beats Homolka with a flashlight and she finally leaves him to file charges. Soon after they are both arrested and the charges are laid.

From there on, Karla pleads guilty to two counts of manslaughter as a lesser crime and receives 12 years. This is part of a plea bargain in order for her to testify against Bernardo, which helps to put him in jail for life. The problem here is that as evidence comes in, we find out that Karla was not as impressionable as they thought, and was actively involved, often the leader, in their

violent acts. Outrage spreads over her plea bargaining deal. She is never granted parole.

Now, twelve years later, she will be freed to live in Montreal. The conditions of her release are tight: She is to tell police her home address, work address and who she lives with. She has to notify police as soon as any of the above changes. She will also have to notify police of any changes to her name. If she wants to be away from her home for more than 48 hours, she will have to give 72 hours notice. She cannot contact Paul Bernardo, the families of Leslie Mahaffy and Kristen French or Jane Doe. She also may not contact any violent criminals. She also will be forbidden from being with people under the age of 16 and from consuming drugs other than prescription medicine. Continue therapy and counselling. Provide police with a DNA sample.

Still many argue that the system made a grave error in letting her receive only 12 years for her unspeakable crimes. It is times like this that I do feel justified in criticising our legal system. As time goes on, it would be nice to forget the details of her crimes, but we must never forget the monstrosities that she participated in. Lest we forget, lest we let someone else escape their just punishment, for all who so commit the crimes must duly so serve their time.

## SunRoom: Scallops with attitude!



CINDY BAO  
4A ELECTRICAL

## SunRoom

55 George Street  
Stratford, Ontario  
519-273-0331  
<http://sunroomstratford.com/>  
Dinner + a glass of wine  
plus tax and tip = \$50

On my last day working in Stratford, my team was planning to go out for lunch. I told them that if I am taking them out, we'd go to Burger King, if they are taking me out, we'd go to the Sun Room.

Situated slightly away from the downtown core, I was introduced to it by the tried-and-true word-of-mouth market. However, during the Festival reason, you can't get in for

dinner without a reservation.

The food here doesn't quite belong to one genre or another, some items on the menu sounds like the kind one's grandmother would serve on as Sunday dinner, while others distinctively Asian.

To start, there is the scallop in phyllo. The goat cheese melts into a soft, creamy sauce, topped with chopped red pepper, is definitely nice on the eyes while the flavours complements one other. Unfortunately, the scallop was baked well done, lacking the somewhat translucent perfection in the centre. The daily soup does not disappoint, however, bonus point for having two varieties in one bowl.

The lobster and ricotta raviolis with mushroom, spinach, tomatoes are delicate, and neither the filling nor the sauce are overpowering. The Thai seafood curry with egg noodles is sweet with the right amount of heat, and generous with the shrimp and scallop. I am a bit ambivalent about the beef tenderloin salad though. The meat was done to the cook-book-correct medium-rare as I have asked. The mushrooms and pine nuts in the salad are

surely nice touch. But it undoubtedly can do with less dressing than drenching the Boston lettuce in mayo and vinegar.

A meal just isn't complete without dessert. Since the visual presentation is an important aspect when it comes to confections, the idea of using a photo album as the dessert menu was more than welcome. The sun dried cherry crème brulee is pretty with a tint of pink hue, but the cherry is not so pronounced. The flourless chocolate cake is decadent, warm and moist. The chilled chocolate and mango mouse cake is clearly well chilled, so much so that I can taste shards of ice as I dig into it. In itself, the cake isn't a bad choice though.

Last, the location is quieter than the places found on King Street, and I especially like the dining room where two sides of the walls were just large panes of windows. The hostess is very personable and the ambience homely, that given the food, you still will not associate the place with trendy words like fusion that is so overused in Toronto's Queen St. West.

## Media

Continued from page 9

from the horrors of a world that we have been told is too bleak and too terrible to behold. The terrible irony of this is that the people most able to help those who are actually still legitimately living in fear somewhere on this planet - and they are out there - have been so brainwashed by the media that they are too afraid to go out and help, and instead spend their valuable time and money on selfish, escapist and ultimately unproductive pursuits, actually wasting the one thing that they should be afraid of losing: time.

It would be good to remember that with very limited exceptions, our great-grandparents lived on farms, in poverty, with life expectancies in the 40-50 year range, if they didn't die of accidents younger. Their odds of dying in their beds of old age were nowhere near ours.

The media is now locked in the cycle of selling fear and imagined death, and this crowds out actual thought provoking journalism, where people are encouraged to think about serious issues – which of course still remain to be resolved - and their causes, and truly question how they can improve everyone's lot. The brave mentality of continual improvement is what got us from the squalor of the eighteenth century to the prosperity of the twentieth, and this mentality is what's being lost. Today, media cannot report seriously on the supposed causes of terrorism or conflict, are not allowed to seriously question any of our deep rooted systems or deficiencies in our culture or even their own reporting of it, and instead continue to reap the short term benefits of making us cower in our expensive houses, while feeding us a pabulum intended to blind us to the fact that we are living in a golden age, which we can still improve. No one seriously 'runs the numbers' on what the real cost of automobile transportation has been on our society, no one seriously questions how the current business model stifles innovation, no one seriously questions why we haven't made any real honest to God scientific advances in the last 40 years, no one questions why our Universities, once bastions of counter culture, are now more politically correct than the real world, no one questions why the current education system no longer prepares people for the work place. The dominance of media supported fear is so prevalent that even our governments believe it, which is why \$80 billion U.S. went to 'security' and not to combat poverty, why Americans spent more last year on Entertainment than Education. Improving the world for the better is impossible when you believe that it's constantly backsliding into the dark ages, and that's what the media would have you believe. The worse thing that can happen if we try to improve, is that we could fail. We are so afraid of failure that we've given up trying to change anything, and have decided to rest on our laurels, while watching the world collapse according to the media. It might not collapse, but it certainly won't get better. It's time to change the channel.



## Jaclyn's comic

JACLYN SHARPE  
1B MECHANICAL



## Colours of summer

RAHUL BHARDWAJ  
4A ELECTRICAL

The walk on this dark road,  
There are no crossroads that will ever be,  
Hallow lies and dark truths on every turn,  
Love lights the lamps that burn on this street,  
So precious do you know why I am here?  
Hanging on that one love so true,  
So precious do you know why I exist?  
...I live, I lived always and only for you  
I am not perfect, I am not perfect, I am not perfect....  
I created the madness, the sadness that burn,  
And the damage can be seen on this road,  
As it gets longer and darker on every turn  
Left outside, standing by your door,  
This existence is a nightmare, ticking to the clock,  
Leaving me for him as always,  
The rage grew within me, but I still knocked  
Just to see the smile on your face,  
I've bore the abuse of a thousand years,  
Just to hear those words you say.....  
I never meant to give you Hell, my Dear  
But I will not become you, NO!  
I will not blame and count all your stabs,  
Every prick was a hug, every slap was kiss,  
Every word will always be that summer song on your lips,  
I know I disappoint you with every step I take,  
But I am not perfect, I am not perfect, I am not perfect,  
I created the madness, the sadness that burns  
And the damage can be seen,  
As my soul dies, every time I learn.....  
Colors of the summer and the moon shade,  
Colors of green, gold, orange and blue,  
Colors that blinded me, I am sorry,  
Were the Colors that were never meant to hurt you...  
And the walk on my road,  
There are no crossroads, there will never be,  
Hallow lies and dark truths on every turn,  
Love lights the lamps that burn on this street.

## the Iron Inquisition

Sarah Vandaiyar, 2B Chemical

## What's wrong with having a sweet boyfriend?



"There's nothing wrong. I'd love to have one of those."

- Aizhan Zhussupova, 1B Chemical



"We love sweet boys!"

- Grounds Crew:  
Trish, Sarah, and Ashley



"I'd feel bad if I had to hit him."

- Christina Steele, 1B Mechatronics



"Nothing."

- Jamie David, 1B Systems Design



"Bad boys are attractive."

- Meghan White, 1B Systems Design



"I think Swedes are wonderful."

- June Lowe



S: "Huh? Nothing's wrong with that."  
A: "LOL"

J: "I don't know cuz he's not sweet."  
- Sharon, Angie, Janet, 2B Chemical



"I'd feel guilty if I did something wrong, and I'm addicted to bad boys."

- Mandy Wychreschuk, 3A Chemical