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the IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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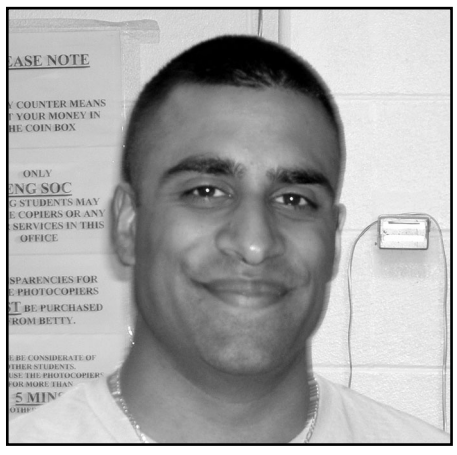
Presenting the Newly Duly Elected EngSoc Exec!

President



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3A Systems Design

VP External

Christina Waters
2B Chemical

VP Education

Ken Hanes
3B Environmental (civil)

VP Internal

Andrea Rayner
2B Chemical

VP Finance

Dave Johnson
3A Systems Design

WEEF Director

Mike Spendlove
1B Systems Design

Congratulations to all 18 candidates who ran in the Summer 2004 EngSoc elections. This was the largest election in many years. And to cap off the thrill, over 20% of the engineering student population cast ballots. This is the type of spirit that will make the next two B-soc terms excellent, way better than any A-soc term could ever dream to be.

The staff of the Iron Warrior will be looking forward to the eloquent executive reports each of these individuals will be producing in the next two terms. Will anyone have a picture as dorky as Levitz's photo was? Will anyone have a nickname as cool as Jeff Alfonsi's? Will anyone be as responsible as Emma Bardon? Will anyone be able to match Matt Strickland for poetic genius? Will anyone be as brief as Grant Holohan? Will anyone yell at computers as much as Erin Young? Will anyone submit on time? We'll see...

The assembled candidates pose before the camera, moments away from the big annoucement in the largest EngSoc election in memory.

Midnight Sun Tour

Nicholas Gilhooly
Midnight Sun Logistics

The Midnight Sun Solar Race Team has been building a new solar car every two years since the first GM Sunrayce in 1990. While one year is often devoted to racing, the other year is spent solely on developing the next solar car in anticipation for the next race. However, that trend will end this year with Midnight Sun Team's North American Tour.

In the summer of 2004, the team will be traveling across Canada and the United States to capture the World Distance Record for the longest single journey by a solar powered car. The tour, lasting approximately 40 days will include media stops, stops at camps, schools, community, and corporate events along the way. Along our journey we will reach out to thousands of people regarding the potential uses for alternative fuels and solar energy.

Midnight Sun VII will be used to complete the World Distance Record. In July 2003, Midnight Sun VII placed 3rd among 28 teams in the American Solar Challenge and 1st among the Canadian teams. The team was also awarded the prestigious Technical Innovation Award for an innovative aerodynamic body. The American Solar Challenge stretched over 3700 km along historic Route 66 from Chicago to Los Angeles, and spanned a wide range of challenging terrain, from the urbanization of downtown Chicago, to the barrenness of the Mojave Desert, to the ruggedness of the Rocky Mountains.

Despite the added pressure of the North American tour, the team is also busy designing Midnight Sun VIII. The one big change from the previous car will be the addition of hydraulic brakes to the car. In addition, the vehicle will have better aerodynamics, a more efficient solar array and a new motor controller. With the new improvements to Midnight Sun VIII, the team is confident in placing first in the next American Solar Challenge in 2005.

The team is always looking for new members to participate. Fourth year engineering projects are also available for those who are interested. If you are interested in joining the Midnight Sun Solar Race Team, you can send an email to mail@midnight-sun.uwaterloo.ca or you can reach us by phone at 519-888-4567 x2978.

For more information, including daily updates and photographs during the tour, please visit the Midnight Sun Solar Car website at www.midnight-sun.uwaterloo.ca.

The unveiling of the Midnight Sun VII Solar Car for the 2004 season seen here at a team picnic.

"I'm the one who'll have to suck on this in class. Don't quote me on that." - Neil Thomson, CivE 280

Letter from the Editor

John Olveltine

2B Civil

Editor-in-Chief

The big news around the halls of engineering these days is the EngSoc election, happening even as I write this letter. This is a time when the students of this esteemed faculty make their preferences known as to who should organize and execute events, liaise with staff, and keep U of T from stealing The TOOL.

Students posted many displays in an attempt to gain exposure and sway voters. Seeing a poster was pretty much a given, since they were everywhere. Well, they were everywhere for about a day.

Very quickly, posters were being removed from their places on the walls of the engineering buildings. Sometimes in less than 12 hours, a poster would be gone.

Tearing someone's posters off the wall is a despicable act of contempt. The people who produce those posters invest time and money in their work. The posters are symbols that represent the people and their ideals and the work they are willing to contribute to the Student Body. Tearing these important displays from the walls insults the candidates and it insults the Student Body. It insults everything that the Engineering Society does for every student. The attitute represented by this should not be found in this school.

Engineers are expected to act in a professional manner and to contribute to the society in which they live. That comes right out of the PEO Code of Ethics. Defacing legal public displays shows a complete disregard for the morals and expectations of the engineering profession.

When we all graduate, we will be on our way to a career of accountability in the public spotlight. Our actions will be held to the highest standards. What we do will make a difference in this world.

That's what we're told, anyway.

If individuals are allowed to deface public property without penalty, then how will those people ever learn to be accountable for their actions? How will those people become role models in society?

The classroom is a very good way to pass on technical knowledge and skills. Most people reading this can now integrate an equation. But does everybody know how to be a productive member of society? How we live is as important as what we do. What does it matter that someone can design immense skyscrapers if that person lacks the social skills to gain employment? Who would hire someone who was arrested for crimes against society? We spend so much of our time learning how to engineer that people forget we're also human and need to succeed in the human world as well as the school world.

The problems of social apathy and social disdain extend beyond the small example of poster trashing. Everywhere in this society a lawbreaker can be found. Many are never caught. Many are repeat offenders. Violations of the law can be as small as speeding or as large as embezzling. The people that have been placed in positions of power are often the sources of these infractions. Everybody speeds; that has become the accepted thing to do in this world. But does everybody embezzle funds? No; at least, not that we know of. Many children are taught that these kinds of things are wrong, from parents or television or in school.

The sources that teach of the harm of breaking society's rules also teach the benefits. A parent who drives through a yellow or even a red light tells a child through actions that sometimes breaking or stretching the law ends with positive results. Only if that parent drives into a crash or gets ticketed by police will the learning child see the dangers of such action.

Television plays a large part in the development of children's morals in society today. The dangerous kinds of shows usually begin to enter a child's life just after grade school. Since its been so long since I've been a grade school student, I don't know what the current "in" shows are, so I'll draw from my own experience and use an example we might all recognize: Teenage Mutant Ninja Turtles. We see on that show that hurting people can lead to good things. No one is ever killed (hence the Shredder returns every episode) but the message gets through that force can lead to success. Granted, force is sometimes necessary to overcome a situation, like when the bully is picking on me on the schoolyard, but never do the Ninja Turtles leave the impression that diplomacy or cooperation will result in success.

Often in television programs, the characters are maneuvering themselves into positions of power or fame or wealth. We can see these ideals reflected in people Canada-wide. We all love when we land the high-paying co-op jobs. We all like to have our ideas appreciated and adopted. These simple goals may not lead to moral corruption, but as I've heard said, "power corrupts." Who is happy to see their paychecks decrease from one work term to the next? If anyone says yes, I applaud you. But I don't think I'll do much clapping.

There's a problem in society. What can be done about it?

Three things. Family, television, and school are the three main mediums through which Canadians develop their morality. These three things can also be used to turn around the direction of Canadian society.

The easiest of the three for government to control is the school. Technical learning is important, yes, but there's more to life than work and knowledge. Classes can be designed to build the morality of students. I'm not a psychologist, so I don't know what this would entail. But I am human, and so I know that behaviour and ideas come more from experience than from textbooks. The social classes would have to be practical exercises, forums where students can be put in situations, like "he stole my lunch money!" and have the students work out what to do. Don't just tattle to the teacher, but try to find another solution. Young children are impatient with the world, and like to move around, and a practical exercise like this would be an excellent opportunity to get the kids moving.

Television is the next easiest thing to control. As a public forum, the government can set guidelines as to what can be presented. Of course, some people will cry censorship and freedom of speech. But then, the government needs to look out for the good of the many, not the desires of the individual. The internet can assist in this. Parents have a much easier time controlling internet access through parental controls than they do TV. Anyone can say anything on the web.

Parents are the hardest to control, and might even be impossible to control. The only idea that comes to my mind to teach parents how to teach children morality is to institute a mandatory class for new parents. I suspect that this would find many opponents if it ever tried to become reality. Again, this would be limiting people's right to freely choose how to act and how to raise children. Also, the cost to the government would be a great deterrent. Too bad we can't count on a major corporation to be a sponsor.

When these ideas become reality, hopefully we will see a decline in the numbers of posters torn off walls during electoral campaigns.

Questions? Comments?

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

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Advice and Letters

Dear "High Rider,"

Need I say more?

-LowRider

PS: Howdy to all of the B-Soc LowReaders.

PPS: Yes, of course it's really me.

Dear Low Rider,

Of course you do not need to say more. You do not know how to say more. Your brain is not large enough to contain a longer sentence.

-High Rider

PS: I'm keeping this message short for ease of comprehension.

High Rider,

How would you pick up the ladies?

-No, no ho

Dear No, no ho

Are you Native American? Or are you just making a pun atrocious enough for someone of your "intelligence"? Since you are obviously in need of help upstairs, and probably downstairs, I will be compassionate and spell this out for you. If you want to pick up the ladies, you will need considerable strength in your arms, lower back and legs. To achieve this "worthy" goal you should go to the gym. Do not bother to question me about which machines you should use – I do not frequent such vulgar places.

If, on the other hand, you phrased your question in the crude slang of baser minds than mine, then you must be asking how to impress girls. In that case, you must also be blind as well as dumb, for anyone can clearly see that there are no girls around in the Engineering faculty at Waterloo. I suggest you transfer to York immediately.

-High Rider

Dear HR,

If I'm baking a cake for my family and I run out of confectionary sugar, is it okay to substitute in cocaine?

-Dead-beat Dad

P.S. Where do I cheap cocaine?

Dear Dead-beat Dad

You may put whatever you want in your cake. Anyone who shares a house, bed, and especially the same genes with you cannot possibly be impaired further than they are already.

-HR

Dear most esteemed and beloved High Rider,

What's the deal between you and LowRider? Does he hate you? When are you going to kick his butt back into the hole from whence he came?

-Admiring Fan

Dear Admiring Fan

If I ever kicked Low Rider's butt, my foot would atrophy and die from the humiliation of contact. Thus, I will never actually kick his butt into the hole from whence he came. On the other hand, his very depravity ensures his continued residence in his current abode, which is, as is fitting, a deep, dark, and dank hole.

-HR

Dear High Rider, if that is your real name, and I seriously doubt that it is, since there are no "High Rider"s in the 3A Elec class (I asked around one day),

You should run for president of FEDS next election. I want to be able to not vote for you. LowRider for Prez!

-Curious George

Dear Curious George

You remind me of a book I read some years ago. It was written by a Russian author in the 1800s. The title was "The Idiot".

-High Rider

P.S. Please keep writing in – you give my readers a good laugh.

Do you have any questions or complaints about High Rider (and especially Low Rider)? Let us know at iwarrior@engmail.

Taking Head

As some of you know, John Olveltine was running a hopeless race for VP Internal. As part of his campaign, he created a giant head attached to a carton of milk. Why a carton of milk you ask? Because his nick name is Milky. Why is his nick name Milky, you ask? We are not exactly sure, but our theory is that it somehow refers to his obsession with lactating women/men/goats, though explaining that obsession would fill a seperate article in itself. But who would want that much head.... from John? Let us start with the usual suspects. Top suspect: John Olvalson himself, in a pathetic attempt to gain more votes through publicity and sympathy for his plight. Hey John, if sympathy doesn't work with the ladies, it won't work here. Then again, he could have stolen the head to give himself more head, since this is easier than surgically removing two ribs. Suspect number two: any person who went to DUSTED. Edward claims that Francis took the giant head since he needed somewhere to throw up. What better place than someone else's mouth? Francis's theory, on the other hand, is that Edward stole the head after getting plastered and stoned with a friend as a disgrunted attack at John for cutting too much out of his articles and not buying KFC for staff meetings. Suspect number four is the old man who tried so hard but just couldn't pick up any girls at DUSTED. So he followed our bus back and got some head. The fifth and final suspects would be the previous executives who are annoyed at John for the impeachment article and for being impeached in general. This would cause them to sabotage John's campaign and rig the election so that John could not win the election under any circumstances (more so).

So those are our suspects. If you have any leads or know who stole the head, maybe someone who is giving head, let us know so that we can stop the culprits.

Tips for Stinky Students

For everyone who's been here for a while, you should know what Waterloo is famous for. It's famous for its engineers and the smell of cow manure. The two, unfortunately, are not unrelated. It was during my 1B term when I realized this connection. Not only did the smell come from the indoors, but it was during the winter term. This hit me as a bit of a surprise. Actually, the stench hit me quite hard, as most of you who have encountered the stench know, it hits very hard. This is especially true if you show up for class late. You go from the cool crisp air of the outdoors, into the bacterial brewing dungeons. I'm sure there are bacteria in those rooms that have still not been identified yet. But that was the winter term…

"Just keep your mouth shut."

What quickly approaches us is the damp sweltering heat of the summer. So far, we've all been blessed with reasonably cool weather, but that can't last forever. What really concerns me is the combination of bad BO with poor ventilation. Where exactly is the smelliest building? After doing a bit of research, and at the expense of my nose, I would have to conclude that the smelliest location is the bottom floor of RCH. Luckily, only the first years are banished to this location.

Why exactly does it smell so bad in engineering, though? My hypothesis is that some engineers don't know squat about personal hygiene, thus I dedicate the rest of this article to setting up some ground rules.

1. Anti-perspirant and deodorant are not just for athletes. In case you don't know, anti-perspirant reduces sweating in the underarms, which is generally where BO is generated. Deodorant on the other hand is used to mask bad smell. My recommendation is to use both. Some people may say, "I've smelled my own underarms and they don't stink, so I don't have BO." If you think that, you are one poorly mistaken fool. In general, you cannot smell your own BO. If you are still reluctant to put on anti-perspirant and deoderant, then you should perform the "sure, unsure" test. Walk into the SLC and in the eating area, find a stool that's between two random people. Sit down and raise both your arms, pretend you're stretching or something. If you are unwilling to do this, then put on your stench remover. If you are willing to do this, but the people next to you get up and leave, then put on even more.

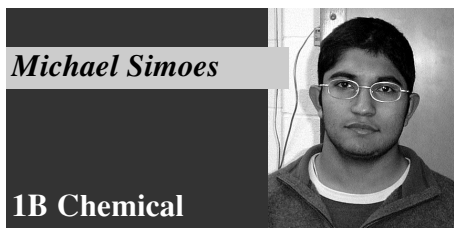
2. Anti-persirant and deoderant are to be used in combination with showering. In the summer, showering must be performed at least once a day. Yes, once a day, some people even shower twice a day. Although this amount of showering can dry up your skin, so I recommend using a moisturizer. Some people skip showering for days on end and spray on some cologne. They think to themselves, "now I smell nice". Think again. This is similar to spraying cologne on a pile of shit to make it smell nice.

3. Change your clothes. Any article of clothing that is pressed up against your skin should be changed on a daily basis. Wearing it for two days is a bit of a stretch, three days is unacceptable.

4. The breath of evil. This is an easy one. Just keep your mouth shut.

I'm sure there are engineers out there who will be unwilling to comply with these four basic rules. Therefore, I recommend that each class set up a "BO control police". Essentially, they send out warnings to people in their classes. We should also arm them with econo-sized bottles of deoderant and Febreeze to spray down the troublemakers.

I Saw the Sign...or Not



On Monday June 28, Canada went to the polls except, in the University of Waterloo, where are the polls? After class, wanting to do my duty as a Canadian citizen, I went to the Great Hall in Village 1, because during the provincial election, that was where I went to vote. Guess what? The voting booth at Village 1 was not for the riding I was living in. Think about that for a second. I live in Village 1, yet, I cannot vote at the polls there because it is not my riding. Apparently, that riding is for those living on Philip Street. This does not make sense to me either, but determined to have my voice heard, I found out I have to go to Conrad Grebel college to vote. Well, WHERE IS CONRAD GREBEL COLLEGE? I have had no need to go to Conrad Grebel ever in my two terms at the university. There were no signs to guide me to this nice and wonderful building, so I went for a hike through St. Jerome's College, Renison College, saw Resurrection College, and finally after seeing one lamp post sign, it directed me to the polling station. Great, something that should only take 10 minutes, give or take depending on the line, took 45 minutes. That is 30 minutes of my life that I want back.

The voting problems did not just happen for those living in Village. The problem was also with the buses that were taking students to off campus voting stations, to promote voting. That is awesome to hear, but I witnessed a bus that left with only one person in it. Give me a break, at least wait for two or maybe, just maybe, three people. It is a waste of fuel, it is a waste of the driver's time, it is a waste of time for those waiting for the bus to return so that they can go to vote.

We are required to vote, granted, but is it worth it to waste the time that could easily be saved by a couple of signs, or a bus that will wait for a few more people to save fuel money? It is not a lot to ask, I want to vote, just point me to it, or take me and couple of my friends to it, just do not waste my time.

Features

Working Abroad: Co-op Experience from Sri Lanka

Suresh Sriskandarajah
Sri Lanka Correspondant

Spending time in another country can often be a life-changing experience, but it is especially true when the time is spent working on development projects in second or third world countries. This is why I chose to describe how I spent my last co-op term in Sri Lanka to working as a volunteer in various technical areas. This opportunity came via Vanni Innovation Group (VIG – www.vanni-group.org).

Volunteer Program in Sri Lanka

VIG is a student-run organization designed to support existing development agencies by providing student volunteers. Domestic volunteers in Canada support and assist volunteers that travel abroad to help in the North-Eastern region of Sri Lanka (Vanni region). Several technical and non-technical development projects are also undertaken by students in Canada to be designed locally. The volunteers in North-Eastern Sri Lanka focus on teaching local students skills in technology, business, and English. These skills provide students with knowledge that will give them greater employment opportunities. The traveling volunteers include University of Waterloo co-op students spending their co-op terms in Sri Lanka. The University counts this as an official work term and grants a credit for the time spent there. Funding assistance from the University of Waterloo paid for my flight ticket, although all my other expenses such as accommodation and transportation were covered by NGOs that VIG was collaborating with in order to implement these projects in Sri Lanka.

Projects in NE Sri Lanka

While I was there, there were a number of projects I got involved with. You can find a brief introduction to a couple of them, below. More information about the remainder of them can be found on the VIG website.

Solar panel manufacturing training

A solar panel manufacturing plant was being setup in Vanni by an NGO called The Economic Consultancy House (TECH). I was responsible for providing training for about 600 students in solar panel technology. At the end of the training, about 20 students were selected to be employed in the plant and to become instructors themselves for new employees.

Network design, implementation and training

TECH opened up a new head office in North-Eastern Sri Lanka. TECH Canada funded a computer network to be established for them. I worked closely with another VIG volunteer from Australia to design the network based on their requirements and to implement it fully. The staff working on the network also received network administration training.

Children sponsorship database

The Tamil Children Endowment Fund (TCEF) started a child sponsorship program to sponsor children online via the Internet. VIG designed and implemented a solution for this from Canada. While I was in Sri Lanka, I was involved with gathering all the photos and data needed to launch this project.

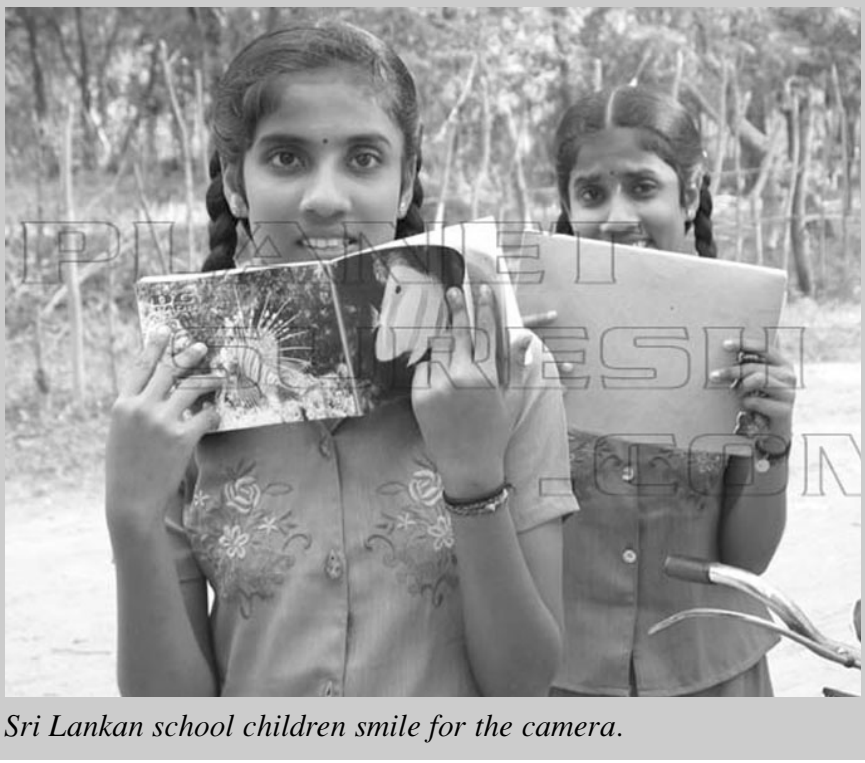
Electronics, computer, business, English trainings

The majority of my time was spent in training students from various institutes and organizations on various subjects. The topics included digital electronics, database design, web development, network administration, entrepreneurship and English.

My Experience in Sri Lanka

Now that I have presented the information about the projects I was involved with, let me describe a little bit about the overall experience I had in the North-Eastern part of Sri Lanka (Vanni). I was born in Sri Lanka but this was the first time I was going back after 15 years, which was a source of some anxiety for me. I was going to a region that had been in war for couple of decades, so I wasn't sure about what to expect. Based on what I had heard from people, I thought I would be in a totally underdeveloped jungle. I also thought that there wouldn't be any reliable electricity or water supply.

Once I arrived in the Vanni region, I was totally blown away by everything I saw. In just a short period of 2 years, they were able to develop the region to a great extent. People were extremely motivated to progress and placed a high priority on education. At the same time, there were certain other things that the region was lacking. These included a lack of communication, transportation and human resources. The region only has around 200 phone lines and the main mode of transportation for the average citizen was by bicycle. Since a large percentage of people left the country during the war, there is actually a shortage in the labour force to redevelop the nation. It was evident that foreign assistance was urgently needed to reach this goal. This doesn't just mean sending funds. What is equally needed is for foreigners to travel there to teach the locals various skills that are needed for the economy to develop. The locals really appreciate anyone who does so. This was the main reason that I was welcomed everywhere and treated with a lot of respect in Vanni. Contrary to what most people would think, there were even several foreigners helping out who did not speak the local language, Tamil. There are many ways for people who cannot speak the language to assist heavily in the re-development process such as in knowledge transfer.



Sri Lankan school children smile for the camera.

"In just a short period of 2 years they were able to develop the region to a great extent. People were extremely motivated to progress...."

This being said, what I observed to be the most immediate needs in the region were the needs for knowledge transfer in English and technology. A couple of years ago, there was no concept of computers in the region. Even now, over 95% of the schools do not possess a single computer. Students and the general public are not exposed to much technology. Only a small percentage of the population receives exposure to high technology areas. Students also have to study in poor environments such as war-torn buildings. Electricity is usually available only for 4 hours at a time since the electricity is primarily supplied by diesel generators.

I also spent some time working with several orphanages, which are locally called children "illams" (homes). It is a great thing to see that not a single homeless person can be found in the streets of Vanni. They are all being taken care in an illam. The children in these illams receive 3 meals a day and get education. There are, however, some limitations such as lack of proper nutritious meals and exposure to the outside world. Recently, these children were being admitted to schools in the region that allowed them to interact with the society more. When I spent some time with them, though, it became quite clear that they really needed assistance from youth all over the world. Although financial assistance is essential in meeting the daily expenses, there is also a need for us to spend more time with them. They highly valued the fact that I was able to share my experiences and teach them little things such as songs. It gives them a sense of realization that there are people in foreign countries who love them and care about their well-being. This type of interaction is the best way to help the orphans overcome their feelings of loneliness and to develop into well-adjusted members of society.

Based on my trip, it is evident that the North-Eastern region of Sri Lanka is at least 10 years behind where it should be in terms of education. It is in the hands of youth from all over the world to help improve this situation. What would be even more effective is if students would take their school breaks or co-op terms to travel down to Sri Lanka. They could spend some time traveling around and understanding the current situation and then teach anything they could to the locals. It's important to keep in mind that language is not necessarily a barrier, so anyone should be able to go down. Based on my experience, I can say that my time there definitely opened my eyes and I'm able to see the bigger picture in life. Seeing the situation in Sri Lanka made me aware of the wealth that we possess in Canada and gave me more motivation to do well in life here. It's really hard for me to explain exactly what I went through. A better understanding can be gained by speaking to people who have been there and by looking at their photos. However, it can only be fully understood if you take the time to travel and see it for yourself.

The beautiful vegetation of Sri Lanka on a clear, sunny day.

Check out the next issue of the Iron Warrior for complete details on signing up for an exchange term. Its filled with a lot of little tricks that some people don't know about.

POINT VS. COUNTERPOINT

Should Minor Political Parties Bother Sponsoring Candidates in Elections?

Dan Arnott

1B Environmental

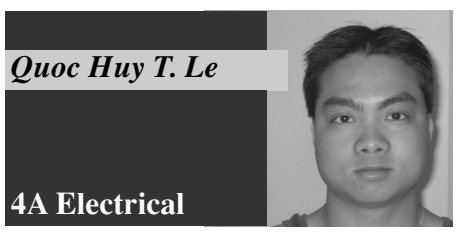
The whole purpose of having a democratic system of government is that it allows people to elect leaders who they feel will best represent their views and advocate their needs to the country. And while it is true that the best-established political parties, in particular the Liberals, the Conservatives, and the NDP, have enough resources and influence at their disposal to meet the needs of a great many citizens, they may not represent many views strongly held by the citizens of Canada. Herein lies the importance of so-called 'fringe parties': they may not get elected, and they may not even stand a chance, but they represent a set of views as diverse as the people who hold them, the citizens of this great country, Canada.

It is often the case that people see no other option than to vote for the Liberals or the Conservatives. But the citizens of Quebec, disillusioned by the lack of attention from either party, started a series of 'fringe parties' which eventually turned into the Bloc Québécois. This party has given a lot of attention to the needs of Quebec as a distinct society, and its fame has spread not only nationwide, but worldwide.

Theoretically, anyone can run for public office in Canada, if they provide a small amount of money and the signatures of a few supporting citizens. This gives everyone a chance — not just those who follow the beliefs of any major party. And although the chances of one of these parties winning an appreciable majority is slim, they are very likely to draw attention to themselves and the issues they represent in the election process. Also, they may provide useful ideas for social, political, or financial reform that could be adopted by a better-established party.

Just to provide an idea of what kind of options we have as Canadians, we have not one Communist party, but two: The Communist Party of Canada and the Marxist-Leninist party. The Green party is a well-known advocate of environmental issues, and has received considerable media attention. The Marijuana party is well-known among the student populace, and offers a definitive solution to the semi-committed stance Canada has taken on the legalization of weed. The Canadian Action Party, although founded on some radical economic ideas and definitely not a friend of the banks, provides the unemployed and struggling with hope and unwavering loyalty (as well as a cool comic online!) And the Carb Options party brings dietary issues to the forefront of politics.

There are many who would claim that voting for one of these or another 'fringe parties' constitutes throwing your vote away. However, is not the purpose of a democracy to vote for the party which you feel best supports your views? The usual Canadian voting philosophy of choosing the 'lesser of two (or three or four) evils', yet not really believing in or supporting any of the major parties, is a good way to encourage political stagnation. If people keep voting for these parties without question, they will never grow or change to meet the needs of the citizens. Voting for something you don't really believe in, that's throwing your vote away. But going with your conviction and voting for whoever you think will represent you best, regardless of party size; that's what democracy is all about.



Quoc Huy T. Le

4A Electrical

Who could have come up with the notion to start groups such as The Canadian Action Party, the Marxist-Leninist Party, or the Marijuana Party? While there is something to be said for political freedom and a range of options for the voter, there is also something ridiculous about a twelve-party system. That's right: there are, indeed, at least twelve registered political parties in Canada.

These superfluous parties are minor, unnecessary, and do not have a chance of being elected in any region. By wasting time and votes, they go about changing the system in the most inefficient method possible. Their ideals may be noble, but their lack of experience gives them no credibility whatsoever in terms of governing a country. Because of this, minority parties should not even bother to run in the election.

> ***" There is something ridiculous about a twelve-party system."***

The most obvious reason for which a minority party should not run is the fact that there is simply not enough support. There is no way that any of these minority parties will be elected to power. Even winning one regional riding is a long shot. Getting Members of Parliament elected is the goal of any political party; indeed, this is how we define a political party. On Election Day, if you chose to vote, you may have noticed that, although there are twelve official political parties in Canada, there were only five choices on the ballot here in Waterloo. This means that less than half of all parties have enough candidates to cover all areas. The lack of representation from these minority parties means they are wasting their efforts.

Registration to create an official political party is not an exclusive process. Interestingly enough, governing experience in its leaders is not a requirement. From this, it can be seen that the peoples' confidence in the newly registered party's ability to run the country is not as strong as those parties who have been around for years. Also, many minority parties have primary mandates that have to do with issues other than the proper governing of a country. When the reasons for which a political party comes into being involve matters that are minor when compared to issues such as health care, education, foreign relations, and taxes, then the party itself is automatically considered minor. Why would a party call themselves the "Marijuana Party"? How important is the issue of cannabis when compared to immigration policies?

What happens once an official party is formed? The newly formed party with their insignificant ideals have been regis-

Continued on page 8. See Fringe Parties.

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

Small Cheerios: The Voice of Minority in the Big World

Anonymous

Much has been written about political systems where two major parties dominate, with the other parties standing on the sidelines serving special interests, though never becoming influential in the way government operates. They fight in each election not for victory, but for mere survival. 5% of the votes makes the difference between a great election outcome and political extinction.

In the best of scenarios, people would want their votes to count. They would like their voices to be heard as clearly as those of their next door neighbours and compatriots on the other coast. People love winners, and people love power. They would like everyone to believe what they believe in. They would do anything to live in a world that they want.

The problem is of course that there are millions of other voters, each with his own opinion that is arguably just as valid. There are no wrong opinions, per se. Certainly, everyone is entitled to one's own.

The job of the government, however, is to impose a way of living on its citizens so that the country it governs can function faithfully to its vision. In a totalitarian regime, this vision may be that of a small group of powerful individuals whose ideas differ vastly from those of its citizens and potential voters. The tool such governments use to prevent a popular coup is force.

In a democracy, the government is elected by the majority. Therefore, the way of life that the government will choose to provide to its citizens is determined by the majority of its constituents. Because the majority is empowered through government, society tends to be more stable. After all, the ultimate power of democracy is that of the majority overruling the minority. That is how laws are passed and enforced. If the majority of the people in the country refuse to obey the laws, a democratic government theoretically becomes powerless and is due for replacement.

This works well for a society where the majority is benevolent. However, democracies have gone wrong before. The most famous case was Hitler's capture of the German electorate. He was given a mandate by the majority, which eventually led to the horrific consequences for the country's Jewish minority.

But who is looking out for the minority in a democracy?

In a sense, everyone is a minority. People differentiate themselves by their beliefs and visions. In a political system where there are two dominant parties, a voter is forced to choose between power and individual beliefs. Voting for the dominant parties requires one to adjust one's beliefs in such a way that non-majority beliefs are discarded, and remotely similar thoughts are awkwardly merged together to a single narrowly defined policy. Life's decisions become a choice between blinding white and daunting black, with strands of greyness in between.

It is irrational to conclude that a free-market businessman who would not mind a tax cut is doubtlessly anti-abortion, pro-gun, in favour of the death penalty, and promotes the interests of Israel. On the other side of the coin, an environmental activist does not necessarily agree with same-sex marriages, universal public healthcare, and raising the minimum wage. However, dual majority politics tags a set to an element of the set. One either accepts this alphabet soup of ideals because one likes the letters A and C, or rejects it completely in favour of coloured Cheerios. Alphabet cereal is just not an option.

One may yet choose the grey, but knowingly voting for a party whose victory is mathematically improbable is as good as a protest vote against the majority. Granted, this is better than a non-vote for the majority, but in the end, the views of this minority become not any more important in the everyday government. It is also notable that this third party is most likely to be a majority of the minority, and hence no more representative of the overall minority population.

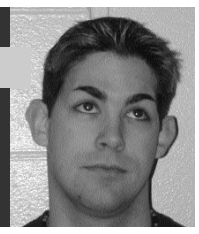
To trust the majority to respect the beliefs of the minority is a paradoxical proposition. What makes a group a minority is not a simple matter of auxiliary beliefs. Often the minority is in opposition to the majority. If elected, the Conservative party and the Republican party cannot be relied upon to defend gay rights, just as the Liberal party or the Democratic party cannot promise to financially relieve overtaxed individuals.

Democracy may be the best system we currently have, but it is not perfect. We must still rely on the good judgement of the majority to make sure that our society remains peaceful and co-operative. There is, however, one strong incentive for the majority to act in good faith: as our society progresses and the population redistributes itself, any majority can become a minority in a short amount of time. The desire to be treated fairly as a future minority is a strong argument for the current majority to behave.

EngSoc Executive

Engineering Society Executive Reports

Good News on Insurance



Josh Levitz

President

We're almost there everyone! One more month and we get a little vacation before we work. I hope the term is going well, though, and no one is completely stressed out! Everything on the EngSoc front is going excellent so let's keep it up.

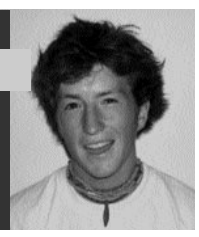
I've actually got some more news in regards to the insurance issues the university has been having. I was told by the FEDS that events such as B**5 will still be allowed to go on with no extra cost for event insurance. As long as the focus of the event is not on drinking, there shouldn't be a problem as long as the paperwork is filled out appropriately. Needless to say this is fantastic news as the insurance policy change will only affect us in a minor way now!

I would like to say thank you to the Canada Day directors and volunteers. I was there for most of the day and everything ran smoothly. The community loved the mini-olympics, and I have to say I loved the dunk tank! It is always a great sight to see EngSoc organized events run so well, and help so many people have a good time!

And finally, congratulations to the newly elected EngSoc exec. I don't doubt that you'll keep the society in the great shape it is in right now!

That's all for me. Only a couple more of these articles for me and I'm done! I know the paper won't be the same without them but hopefully our new president is a better writer than I am! Take care everyone and see you around.

Pulitzer Prize Please



Matt Strickland

Vice President, Internal

In my never-ending search for a Pulitzer Prize nomination, I've decided to write this report in verse. All complaints can be forwarded to the new VP Internal.

Last week saw DUSTED
Travel to Plattsville
Everyone got busted
Welcome to Drunksville.

Rafting in water white,
Was the same weekend
Our crew big waves did fight
And torrential currents did fend.

TalEng, again, was a success story
With jugglin', music, and dancing,
There even was some poet'ry.
Right now I'll just say "prancing".

…

Genius Bowl is coming up
Where smart engineers
Battle for the cup
Amidst their colleagues' cheers.

A formal of semi is coming up Friday
To dance and dine at the UW Club
(The place where profs eat lunch each day).
There'll even be a buffet full o' grub.

That was as painful for me as it was for you. Believe me. As an aside, see how I shortened some of those words with apostrophes? That's what makes a good poem. Write that down. To nominate people for Pulitzer Prizes, check out www.pulitzer.org.

Blood, Sweat, and Tears

Jeff Alfonsi

Vice President, External

In the words of Gord Downy during the HIP concert on July 1st, "I feel so patriotic"! Thanks one million one hundred thirty-seven to all those volunteers who came out and made the Engineering Olympics at UW's Canada Day Bash a huge success. Free tetanus shots for all those who braved the dunk tank.

I also want to encourage everyone to ATTEND THIS WEEK'S ENGSOC MEETING -DO IT! - because we have a special guest. Miranda Restorick, from the Canadian Federation of Engineering Students, is coming to see how our EngSoc operates and give an overview of CFES and its potential impact on our Engineering Society. FREE X-BOXES FOR ALL ATTENDEES, and by X-Boxes I mean dinner.

The Engineering Blood Donor Challenge is running until July 17. As of last week the faculty was winning. We can't have that, team. Let's step it up like butter and beat those pesky profs.

I would like to congratulate Jeff Henry, Jon Fishbein, Angela MacLean, and Joseph Fung for a fantastic job as the 2003-2004 ESSCO executive committee. Congratulations and best wishes to Rahul Bhardwaj, who was elected the new VP Finance of ESSCO.

Lastly, there will be some new boards in the hallway connecting E2 and CPH advertising PEO and OSPE. Anyone who plans to join the engineering profession (and there is a small probability that this will be some of us) should be aware that PEO is a regulating body while OSPE is a lobbying committee. Talk to me, check the board, or Google these acronyms for more information.

Keep your ear to the street for WIE events, with possible surprise guest….the Dean.

Insurance Issues Update

Cindy Bao

3A Electrical

Canada Day has come and gone. While you enjoyed a long weekend and fireworks by Columbia Lake, a few EngSoc directors have been busy making changes to the events they have been planning since the beginning of the term.

Since last Thursday, July 1st, the insurance company for the Federation of Students no longer provides coverage for any events held at licensed off-campus locations. This includes not only pubs, but also any other establishments where alcoholic beverages are served. However, FEDS may still organize similar activities at Fed Hall or Bomber, as the insurance is still in effect on-campus.

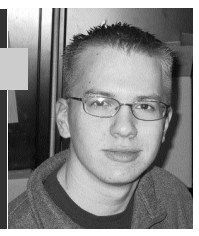
As one of the many student organizations operating under FEDS, EngSoc has been insured for all of its wet events outside the school in the past, but will begin to experience the impact this change has on a few of its beloved traditions, namely DUSTED, B**5, Brunny Trip and TalEng. Fortunately for DUSTED, it was scheduled for June 25th, before the new policy took effect. As for TalEng, its location has been changed from Loose Change Louis', which for the past couple of terms has hosted the Engineering students to show off their talents. Now TalEng is being held in the Bomber.

However, the policy change does not mean these popular events have to be cancelled all together. EngSoc is trying to keep them running. Under the new policy, FEDS groups may purchase insurance for a particular event they are planning off-campus after having filed paperwork to assess the event's risk factors. The current difficulty is that the money required for the premium was not included in the society's budget, passed at the beginning of the term, since the insurance was exclusively paid by FEDS before the changes were applied.

The temporary financial solution will have to come from students who attend the aforementioned events. If past attendance is kept, (B**5 attracts over a hundred students, while DUSTED and Brunny Trip each take up to 48 students) the events will average to a few dollars per student. However, EngSoc president Josh Levitz hopes that in future terms, the insurance will be completely subsidized by the Engineering Society.

The change follows the insurance industry's trend in recent years where the policy providers become less and less willing to accept any risks. Off-campus wet events are perceived as more risky by the insurance company. At this point, it is still unknown that by no longer covering such events, whether the insurer will decrease the amount of premium charged to the Federation of Students.

It Wasn't Me!



Grant Holohan

Vice President, Finance

Those of you who eagerly await the VP Finance spiel were undoubtedly disappointed by the last issue. But I'm back, and the finances of the society have never been better. With the new VP Finance now elected, I'm preparing for a smooth transition so EngSoc's money will continue to be managed well.

I urge directors to get their expense forms in before exams. Otherwise you might be disappointed when you don't get your cheque for a few weeks.

In addition, I'd like to dispel the false rumours that were published in this magazine regarding my alleged dealings with other faculties. Don't fret, your money has never, and will never touch the hands of the artsies.

Debt Loads & Critiques

Emma Bardon

Vice President, Education

As per usual, there are a bunch of major things going on around campus education-wise right now.

There was a JobMine forum on Tuesday July 6th, but since that's after the submission date for this article, I can't write about it now.

There are two sets of surveys going on; debt load surveys, which show the Dean's office how broke we really are (so fill one out and return it to the Orifice), and course critiques, which are used to give profs feedback on their teaching style, as well as being used for salary adjustments and teaching assignments.

There was also a PDEng forum last week, which provided some great feedback. Thanks to all who attended, and I'll write more about it next time when I have a little bit more time to write.

ENGINEERING SOCIETY

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

EngSoc Executive

WEEF Begins Funding Proposal Reviews

Erin Young
WEEF Director

This term WEEF will be spending $45,000 within the faculty. The money will be spent on new lab equipment, computer upgrades, teaching tools, and student teams. The total amount of funding requested sums to approximately $90,000.

By the end of next week the funding council will make its decision on which of the deserving applicants receives funding, and the appropriate amount. The funding council meeting is the most important meeting on the WEEF calendar. It is there that student representatives (one from each on-stream class) vote on the funding granted to each department or student team which has submitted a proposal. The initial decision-making process is governed 100% by students. After the funding council meeting, the board of directors approves the funding decision.

In the past there has been a significant problem with the attendance of the WEEF reps, despite the fact that there are only a maximum of 3 meetings for the reps to attend all term. Now I realize the meetings aren't as fun as Eng-Soc meetings, and the dreamy Josh Levitz is not going to show up, but we are deciding the fate of $45,000 here. Isn't that important? Did I mention the free cookies and pizza at the meetings?

It is important for one representative from each department to attend the meetings; otherwise students from other departments could divert the funding to only their department and leave the absentee's department empty-handed.

Many of the student teams that apply to WEEF are extremely dependant on the funding. Some teams received their start-up money from WEEF, withou which they could not have built themselves into one of the prestigious student teams that Waterloo holds so closely in its definition of success. WEEF has supported teams such as UWAFT, WARG, WOMBAT, Midnight Sun, Free Flight Glider, Formula SAE, Clean Snowmobile Team and more.

WEEF is happy to support many student teams around Engineering, from the small and ambitious to the large and prestigious. We are providing the funding for exceptional students to achieve exceptional goals through the advancement of extracurriculars. If you have a group of people with a great idea, but no money, WEEF is the perfect place to start.

It is surprising to me that this term there are no proposals for 4th-year projects. This would have been a great opportunity to get funding for some groups. In the past, WEEF has provided funding for various projects among all disciplines of engineering.

Now I have no predictions as to where the funding is going to end up, but I am sure that the funding council will do a great job, as they always have. As the director I will order them pizza, sit back, and let them do what they do best – spend $45,000 to make your education brighter, richer, and more fulfilling.

On another note, you may be seeing some spiffy new t-shirts really soon. Watch for the new WEEF t-shirts in the halls. If you want one, you can buy your very own in the novelties shop. Trust me, you'll want one.

Oh, and just in case you were wondering, the principal amount is now over $5.3 million. Now that's well endowed!

WEEF Funding Requests

ACADEMIC DEPARTMENTS	Funds Requested
CHEMICAL AND EVIRONMENTAL CHEMICAL	
Equipment Required to Increase Capacity of ChE032 Lab	$12,000.00
CIVIL, ENVIRONMENTAL CIVIL & GEOLOGICAL	
Academic Network Version of GPS-X	$2, 348.00
GPS	$3,121.10
Newbury Streamlab Demonstration Flume	$1,043.25
SYSTEMS DESIGN	
Systems Teaching and Workshop Lab Upgrade	$3,279.00
Monitors for Systems DASL Lab	$2,988.00
ELECTRICAL & COMPUTER	
Audio Wireless Microphone System for E2-3344	$953.76
Monitor Replacement and Upgrade for Nexus	$2,410.00
Oscilloscope	$4,857.60
Oscilloscope GPIB to USB adaptor	$6,672.00
MISCELLANEOUS	
Engineering Student Machine Shop	$27,000.00
SUBTOTAL DEPARTMENTS	$64,324.71
STUDENT TEAMS	
WARG	$6,900.00
UW ASIC Group	$1635.00
NTT Project	$730.00
Free Flight Glider Team	$735.00
Formula SAE	$5,800.00
Clean snow	$500.00
Mini-Baja (WOMBAT)	$3,870.00
Midnight Sun	$5560.00
SUBTOTAL STUDENT TEAMS	$25,730.00
TOTAL	**$90,054.71**

EWB: Higher Gas Prices

Scott Griffiths
2003 Systems Alumni

Did you know that the average cost of owning a car is $40 per day? Or that Canada has some of the lowest gas prices in the developed world? Or that we might have roaming blackouts by 2005 if we continue to use oil at our current pace? You would, had you been at the the second Engineers Without Borders (Waterloo Chapter) dicussion group held on June 16 on the Grassy Knoll.

The EWB-Waterloo discussion groups are a forum for reflection on current issues that impact us locally and globally. We choose issues that are relevant to students from all faculties with differing global perspectives. The past discussion group questioned whether high gas prices are good or not and debated the impacts they might have on our communities. Here is a summary of what transpired.

Gasoline in Canada is undervalued because oil is one of our most abundant resources and the environmental cost of extraction is not included in the price at the pump. This promotes a culture where gas is cheaper than water and as a result it is consumed at comparable rates. High gas prices force people to be more efficient. In the short term, they will discourage people from driving and idling uneccesarily. If high gas prices are sustained, they will promote the use of smaller cars and public transportation, which will reduce the harmful emissions that cause a host of environmental problems from smog to climate change. Canada currently taxes gasoline heavily (some attendees contested that taxes were above 50%) and there was wide spread support for these taxes, because they can be directed to creating higher quality public transportation. Despite these taxes, even higher gas prices in Europe, along with other factors such as high population density, have shaped a society that is less reliant on cars and has more efficient public transportation.

Although high gas prices may promote environmental efficiency, what about short-term economic efficiency? Increased prices at the pump will make transportation for daily goods such as vegetables more costly and these prices will be passed onto the consumer. Might this affect inflation? Perhaps high gas prices are in the long term interest of the public but short-term spikes like the one in May 2004 may cost consumers more.

For more information about EWB discussion groups, email waterloo@ewb.ca or visit our website at http://www.uwaterloo.ewb.ca. Our next group will be on Wednesday, 7 July at the Grassy Knoll (beside the Grad House) and the topic will be announced on our website.

Upcoming Events from EngSoc

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
11	12 Arts Week Starts EWB Meeting	13 WIE Wine and Cheese	14 Genius Bowl	15	16 Engineering Play	17 Engineering Play	*Check out up-to-the-day event postings on the EngSoc website www.engsoc.uwaterloo.ca*
18	19	20	21 EngSoc Potluck Meeting	22	23 E.O.T	24	

Columns

Fringe Parties Shouldn't Bother

...continued from Page 5.

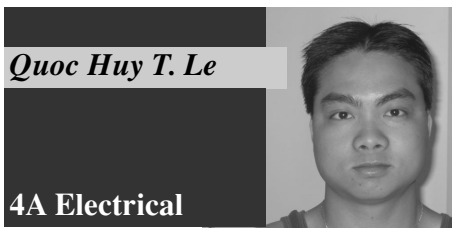
tered and can now start campaigning. The only problem is that campaigning costs money. Little pamphlets cost money. Those signs you see on people's lawns cost money. Delivery and distribution of those pamphlets and signs costs time. And what is it all for? To build up the hope that a victory might be achieved in a few select ridings since there aren't enough representatives to cover every riding in Canada? For minor groups with little representation and little support, campaigning is a lost cause and a waste of time and money.

Suppose so-called minor parties do receive a relatively significant number of votes. What happens is that the votes are now split among many groups instead of concentrated on the one major party that is most representative of the Canadian people. Who's to say that the NDP should not have received more seats if a few individuals had voted NDP instead of Green? Could the Liberal party have had the majority of the ridings instead of being a minority elect if key votes were not wasted on parties that had no chance of winning? Perhaps, and perhaps not, but my argument here is that giving the population too many options is not a good thing, because it makes it that much harder for the true winner to become acknowledged as the party with whom the majority of the populations agrees the most. One right-wing party has a higher chance of winning than one out of four or five left-wing parties, as an extreme example.

Clearly, the endeavour to change the system by way of creating one's own party is a waste. There are much more efficient methods of changing the system. What about becoming a part of one of the existing major political parties and changing it from the inside? This, at the very least, could give a breakaway party some experience and credibility when it comes time for them to run on their own. Bringing new and radical ideas to the table is too much for a society like ours, in which old habits are hard to break.

A lack of representation, support, and time-tested strategies for dealing with the important issues, combine to result in minor political groups getting washed away on Election Day. Their motives may be righteous. But their failure is a testament to the fact that competing against the experience of parties that have been developing for decades is a nothing but a hoop dream. Minority parties shouldn't even bother running.

Exoplanet Discoveries



Quoc Huy T. Le

4A Electrical

On a clear day, away from city lights, you can see hundreds of stars in the sky. To the naked eyes the only planets visible are within our own solar system. Even the most expensive terrestrial telescopes cannot directly detect planets orbiting other stars. Developments in technology and theoretical knowledges within the past few decades, however, have allowed astronomers to confirm the existence of planets orbiting nearby stars.

Since as early as 1996, over one hundred exoplanets have been documented. Since planets don't emit radiant energy of their own (to any appreciable degree), how do astronomers know they exist? The trick is to notice the tell-tale signs that a large body of matter is lurking about. Since planets, like all heavenly bodies, are massive objects, other nearby masses are affected by their gravity. Increased telescopic resolutions allow astronomers to precisely measure the periodic lateral shifts in the star position or "wobble." These positional shifts can be accounted for by a mass pulling on the star in one direction, then in the other direction periodically. In other words, a star's wobble is due to a planet or planets' gravity pulling it back and forth.

Another innovative method of finding planets that is quite effective, especially with relatively younger stars (say, only several million years old) is by reading the swirls of dust that appear around the star. But how can we see the dust, you might ask? For the most part, it is the dust that surrounds the star (and, to a lesser degree, the dust between the star and us) that determines the colour shift of the light when it reaches Earth. It's somewhat similar to how the sky looks blue during mid-afternoon, but appears more reddish in the late evening because the sunlight has to travel through more of the atmosphere before it hits our eyes. When the distribution of dust around a star starts swirling due to a planet passing through, that causes a gradient to occur in the colour spectrum of the star. By measuring this gradient against the known emission spectrum of the star, astronomers can calculate approximately how fast a planet was moving across that region and the planet's mass.

Pretty impressive, right? Well, as brilliant as these methods are, they're still relatively new and plagued with tight restrictions. First, a star must be close enough for us to actually discern the wobble. These positional shifts are orders of magnitude smaller than the star's motion through space. To this end, the orbiting planet's mass must be sufficiently large, or the mass of the star must be relatively small (or both) for the star to wobble to any significant degree. Second, the wobble in a star is exaggerated with an orbit that is elliptical in nature. An elliptical orbit puts more gravitational force on the star at some points during the planet's orbit than others. This regular change in force magnitude creates more of a wobble than circular orbits. Third, elliptical orbits also serve to magnify the swirls created by planets orbiting young stars since their velocities will be higher when the planet is closer to the star. Higher exoplanetary velocities create a more distinct spectrum gradient. Because of this, planets with high velocities and close orbits are more likely to be detected.

Planets most likely to be found are massive ones that elliptically orbit closely around a young star near to us at high speeds. It's no surprise then that one of the earliest planets discovered belong to the star known as 55 Cancri. It is a gas giant that is almost the mass of Jupiter, and it orbits the star in 14.6 days at a distance that is ten times closer to its star than the Earth is to the Sun (one tenth of an Astronomical Unit (AU)). 55 Cancri's second (recently discovered) planet orbits at a distance that is five times the distance of its sister (1/2 AU). Its elliptical orbit takes 13 years to complete and its mass is 3.5 to 5 times that of Jupiter. The smallest planet to ever be discovered is at least 40 times the mass of earth. It belongs to the star HD49674 in the constellation of Auriga. It orbits at a distance of one-twentieth of an AU (one-twentieth the distance between the Earth and the Sun.)

Hopefully, in the near future as technology continues to advance, the study of exoplanets will continue to grow. Aside from the classic questions like, "Is there life elsewhere in the galaxy?" the study of these planets has a more immediate and meaningful importance. Little is definitively known about how planets are formed and the stages of its geological evolution (aside from our own planet, of course). Even less is known about what happens to a planet when it reaches a venerable age before its star goes nova. Much like how the study of nearby stars has given us a new perspective on the history (and future) of our Sun, the study of these planets will give us a glimpse into the history and development of our solar system.

Techbytes

WWDC 2004

Apple's Worldwide Developers Conference was held last week. As usual, Steve Jobs' keynote address caused a stir among technology aficionados. The presentation confirmed what has been rumoured for weeks, which was the introduction of a revamped line of Apple Cinema Displays. These new aluminium-encased high quality LCD monitors will replace the current aging line-up, and will be offered in 20, 22, and 30-inch versions at 100 ppi. The 20 and 23-inch version will also work on PCs. The real story was the 30-inch, however, with a whopping 4.1 million pixels. To drive this new monitor requires a dual output graphics card (because single DVI output can only drive half the monitor). nVidia will be providing an all new graphics card just for this monitor. The card itself (which Jobs proudly said will be a dual dual-output card, able to support two 30" monitors side by side) will retail for $829, a bargain compared to the retail price of $4699 for the monitor itself. Windows users will be spared from depleting their wallets because this piece of work is Mac-only.

Self-parking Volvo

Fourth-year mechatronics students at one Swedish university have, in collaboration with Volvo, developed an auto-navigating automobile. Running Linux off a Pentium 4 computer in the car's trunk, the computer is able to locate and manoeuvre a full-sized sedan into a parallel parking spot. The dashboard of the car is equipped with a LCD screen that shows instructions to the driver. The LCD will give instructions in real time to the driver as to which direction to turn in, and how far to go in each direction. In cars equipped with electronically assisted steering, the driver only needs to change gears and the car will steer by itself. In the most outrageous case, if there is no driver, the car will operate and park entirely independently. More information and three demonstration videos are available at http://www.ikp.liu.se/evolve/. Hopefully this will not increase driver's insurance premiums.

Spiders, Octopuses, and Models: Spider-man Review

Elliot Powidajko

2B Mechanical

Spider-man, Spider-man, does whatever a spider can! Spins a web, any size, catches crooks, just like flies. Woo hoo, here comes the Spider-man! That's right; Spider-man broke in to the theatres in a huge mid-week debut. After such a great success with the first instalment, Spider-man 2 had some big webs to fill. The sequel pulled all the stops in the two hours of action, romance, suspense, and slap-to-the-face defiance of logic and physics.

First with the action. This movie finds our beloved web-slinger pitted against the illustrious Dr. Octopus. The battles in the movie are frequent and fast-paced. With eight arms and a steady supply of innocent bystanders, Doc Oc takes Spider-man to the brink of his abilities and beyond. Other sweet scenes include Spider-man showboating his acrobatic aptitude and foiling several random petty thugs.

The romantic storyline is continued from the first movie. Parker continues to be horribly inept around Mary-Jane, and really just leaves you needing something to hit.

The suspense in the movie is another low point. There is never any doubt as to what will happen next; the movie feels like the RPG I wrote in high school. The other problem in the film here is that Spider-man is constantly being unmasked before everyone, to the point that everybody and their brother knows Peter Parker is Spider-man.

Finally, my favourite part of the movie, the mutilation of common sense and science. First, if I were to build an elevated rail system, I know the brake system would be easily subvertable and the track would end in a dramatic lemming jump into the river! Second, we've all heard of the power of positive thinking, right? I think I can, I think I can. Well, one morning, Spider-man woke up and must have beenin the wrong frame of mind entirely, to the point he reverted to needing glasses and being a dorky dresser! Lastly, and my personal favourite, we can all learn from this. If any of us ever find ourselves faced with an unstable star lashing out at the very fabric of the world by acting as a magnetic black hole, all we need to do is drop it in the lake! Because obviously, a little water is more than enough to douse the heat of nuclear fission.

However, the movie was all it was made out to be, and showed some real Hollywood magic through the faith of a child. Henry Jackson, Peter's Aunt's courageous neighbour, quite literally saved not only Spider-man but the whole movie, that and Stan Lee's cameo saving a bystander from being crushed by falling debris. Thanks to Henry and Stan, I give this movie a full 9 out of 10, definitely see it, I mean really, what else were you going to do tonight? Calc?

Your Campus

White Water Rafting Trip

Alicia Liu
2B Computer

A wet and wild weekend! Okay, before you get the wrong idea, I'm talking about the trip to Ottawa River last weekend to experience some sensational white water rafting, and not a trip to some questionable "alternative" convention (though I concede the Pride parade was on the same weekend and the 7+ hour bus ride did leave bottoms comparatively numb).

After arriving at River Runners (www.riverrunners.com), the outfit we were rafting with, shortly after midnight, we were branded with Frosh Week-like bracelets, and shown to the "cabanas" in which we were to sleep. Before you start thinking about trellises adorned with hibiscus on a sandy beach, these cabanas are actually little cabins that look like outhouses from the outside, and contain the aforementioned wooden planks in a strange bunk bed arrangement. Before hunkering down for the night, in typical camping fashion, we sat around a campfire, sans marshmallows, and listened to stories. It was agreed that introductions should be made, except one was not allowed to introduce oneself, and based on these "introductions", a.k.a. embarrassing/incriminating stories, each person would be given a nickname, e.g. "Jugs", "Barely Legal", "Jail Bait", "Good Times" and others that contain words this paper won't publish.

Three hours of sleep and a waiver later, the rafting began. There's a lot of paddling involved in between the "white water", but once we did hit a rapid, those rafting pictures of exhilarated people getting tossed about by undulating rollercoaster-like waves would be an accurate depiction of us. Luckily, it only rained torrentially while we shored up to eat lunch, and afterwards, it was gorgeous sunbathing weather, even warm enough to go for a voluntary swim. One person, who was on the raft that nearly capsized and threw nine out of the twelve on board into the water, lost one of his shoes when he fell out. But other than that, there were no casualties, except for the target of an on-raft phone-booking incident.

All in all, this was a welcome après-midterms trip, with potential to be run every summer term. Last, but not least, a warm thanks to Greg Roderick for organizing the whole thing so well.

A boatful of happy Engineers takes a quick breather on the shore.

Volunteering and the Engineering Profession

Dan Arnott
1B Environmental

It has been said in the PEO Code of Ethics that an engineer's duty to society and the public welfare is paramount, above even his/her duty to employers and clients. So when we look at the world and see people in poverty, in need of technology or resources, or unable to fully use that which they have; as humans and engineers we desire to help however we can. For most of us, this would mean taking what we've learned in our classes and co-op placements, and applying it to the above problems however we can. Engineers Without Borders is an excellent example of people like us doing just that.

"...if we feel the need to volunteer our skills and time to benefit society, are we expected to charge for it? Isn't paid volunteering just...work?"

However, it also says in the PEO Code of Ethics, Regulation 77, Section 7-5, that "A Practitioner shall… uphold the principle of adequate compensation for engineering work" (PEO, 1990). This brings up the question, if we feel the need to volunteer our skills and time to benefit society, are we expected to charge for it? Isn't paid volunteering just… work?

While it could be interpreted that the PEO Code of Ethics would be contravened by volunteering, Dr. Robert Gorbet, P.Eng., had this to say. "I believe that a charge of unethical behaviour would be unfounded. The spirit of that clause is to avoid bidding wars with one firm offering 50% of the prices of another firm." After all, it is seldom the case where one company will volunteer to do engineering work that another company would have charged for.

Then again, the Professional Engineers Act's definition of 'engineering services' applies whether these services are being volunteered or paid for. The PEO therefore offers a Certificate of Authorization for those who are "… practising professional engineering and engaging in the business of offering or providing those services to anyone but yourself or your employer, you require a Certificate of Authorization" (PEO website).

A C of A is required if you advertise yourself as a provider of engineering services, sell any custom-designed or original product to the public, or volunteer or work for anyone other than your current employer. They are available to any P.Eng in good standing with at least 5 years of experience, for $535.00 and $267.50 to renew. The holder of a C of A also needs to have liability insurance, or needs to inform his/her clients that he/she has none, and have their consent. It is also a matter of professional courtesy that you let your current employer know that you are volunteering/working elsewhere in addition to your normal job, in order to avoid any conflicts of interest.

In the end, it is good to know that the PEO has such a certificate for those of us who would volunteer our skills and our time to solve problems around the world. After all, that's one of the main things engineering is about - problem solving.

Sandford Fleming Foundation Awards

Twenty one awards were given to students from across engineering at the June 2004 Convocation.

Academic Excellence

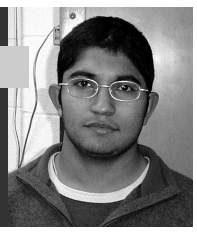
David Gordon Craig (Mechanical Engineering)
Jonathan G. Ford (Electrical Engineering)
Rassin Grantab (Mechanical Engineering)
Jason Mington Koon (Systems Design Engineering)
Erik Joseph Niit (Civil Engineering)
Eugene Evgeny Osovetsky (Computer Engineering)
Joseph Raymond Salfi (Computer Engineering)
Agnes Stawicki (Environmental Engineering, Chemical Specialization)
Matthew Burgess Stevens (Chemical Engineering)
Thomas Kyle Tabor (Environmental Engineering, Civil Specialization
Simon Joseph Thwaits (Civil Engineering, Management Science Option)

Co-operative Proficiency

Cindy Lee Bailey (Environmental Engineering, Civil Specialization)
Yuen Ho Jimmy Choi (Computer Engineering)
Eric Steven Duiker (Mechanical Engineering)
Rassin Grantab (Mechanical Engineering)
Michael Sean Jarrett (Computer Engineering)
Ante A. Misetich (Electrical Engineering)
Marie Genevieve Poitras (Civil Engineering)
Aye Nyein San (Systems Design Engineering)
Jennifer Laurel Saunders (Chemical Engineering)
Kela Paul Weber (Environmental Engineering, Chemical Specialization)

Arts & Entertainment

Football Craze: Euro Cup



Michael Simoes

1B Chemical

With the end of season for North American sports that people actually care about, such as hockey and basketball, our eyes turned to Portugal, where this year's Euro Cup was hosted. The Euro Cup has many of the best professional soccer (that's football to the rest of the world) players in the world competing for the coveted golden Euro Cup.

For most people in North America, soccer is not a big event, and is given very limited air time, mostly on Saturday and Sunday mornings on Sportsnet. In Europe, football is the biggest sport around, and it becomes incredibly intense and competitive. Soccer hooligans are the life of the soccer scene, giving excitement and an atmosphere that cannot be beat. This year the fans cheering for the underdogs came out surprised and full of excitement, because they had ousted the best teams.

For those who do not know much about soccer, England, France, Italy and Germany are generally considered the top teams in Europe. Little did they know that England and France would be beaten by the home team of Portugal and a little known team Greece in the quarter finals. Italy and Germany did not even make it to the quarter finals, the early upsets.

With all the big teams out, the world witnessed one of the biggest upsets in soccer history during Euro Cup on Sunday July 4th, when Angelos Charisteas scored for Greece to defeat Portugal 1-0. Portugal outplayed Greece for the whole game, yet the underdogs came out victorious with comradarie and never-say-die performance. Greece's road to the championship was earned by playing an all-round good game, hard on the defense but also aggressive at the net. To make it to the finals they faced France, the top seeded team, beating them 1-0. In the semi-finals, they beat the undefeated Czech Republic 1-0.

With such an upset, the soccer world needs to prepare for a more intense and more competitive World Cup.

Cindy's Kitchen: 1-Dishers

Cindy Bao

3A Electrical

I found that a great way to cut down on the time for cooking is to make just one dish for a meal. For these two recipes, you don't have to concern yourself with side dishes and they keep well in the fridge, so you can make plenty ahead of time.

Aloo Gobi

Courtesy of the "Bend It Like Beckham" DVD

I learned to make this Indian dish from the feel-good movie "Bend It Like Beckham", where the heroine Jess exclaimed, "Who wants to make Aloo Gobi when you can bend a ball like Beckham." I was never born a soccer player, but the Aloo Gobi demonstration by the movie's director, featured on its DVD, seem to be something I am capable of and I'd like to share it here.

It is a vegetarian dish, great with basmati rice. As I just realized, most of the recipes I have given out so far are not for the carnivores out there, although some, like the Quesadillas and the Thai peanut noodles can be switched to non-vegetarian dishes with the addition of some meat.

1/4 cup vegetable oil
1 large onion, peeled and cut into small pieces
A dozen or so sprigs of fresh coriander, separated into stalks and leaves and roughly chopped
1tsp cayenne pepper
1 large cauliflower, leaves removed and cut evenly into eighths
3 large potatoes, peeled and cut into even pieces
2 medium tomatoes, chopped
2 tsp ginger, peeled and grated
3 cloves of garlic, chopped
1 tsp cumin seeds
2 tsp turmeric
1 tsp salt
2 tsp garam masala

1. Heat vegetable oil in a large saucepan. Add the chopped onion and cumin seeds and cook until onions become translucent.
2. Add tomatoes, chopped coriander stalks, turmeric, salt and cayenne pepper, ginger and garlic and mix well.
3. Add potatoes and cauliflower to the sauce plus a few tablespoons of water (so the mixture doesn't stick to the saucepan). Stir until the potatoes and cauliflower are coated with the curry sauce
4. Cover and allow simmering for twenty minutes (or until potatoes are cooked).
5. Stir in Garam Masala and sprinkle chopped coriander leaves on top.
6. Turn off the heat, cover, and leave for at least 10 minutes before serving.

Makes 4 servings

Chicken Broccoli Casserole

This casserole is a recipe from my step-grandmother. Although it is not necessarily the season for it now (as bubbling cheese and creamy sauce are more of a winter comfort), I am sure you can clip this article and store it until you come back after a work term.

If you find the dish too runny with the amount of broth, you can add diced boiled potatoes or cooked rice in to give it more body. They should be placed between the broccoli and the chicken

3 chicken breasts, cooked and drained
2 cups broccoli, blenched and drained
2 cans cream of chicken soup
1⁄2 cup mayo
1 tbsp lemon juice
1⁄2 cup grated cheddar cheese
1⁄4 cup chicken broth
1 tsp salt
1⁄2 tsp curry powder (optional)
1⁄2 cup bread crumbs
1⁄2 melted butter or margarine

1. Layer broccoli on the bottom of greased casserole dish. Place chicken on top.
2. Mix together soup, mayo, lemon juice, chicken broth, salt, curry and cheese and pour over chicken and broccoli.
3. Sprinkle crumbs mixed with butter on top.
4. Bake uncovered at 350º F for 35 minutes or until topping is brown.

Makes 3 servings

Propoganda You Want to Watch: Fahrenheit 9/11

Cindy Bao

3A Electrical

After watching Michael Moore's Fahrenheit 9/11, one might feel more strongly than ever that documentary films are not really about precisely the truth, which many would interpret differently. They are, however, hopefully about the filmmakers' belief of truth, or at least their opinions based on the facts presented in their creative work. Of course, it doesn't come as a surprise that this documentary comes with a clear political agenda.

The film opened with the election night of 2000, Al Gore was celebrating his victory in Florida with the Gigli star who later almost became Mr. J. Lo standing behind him, only to be told otherwise later by Fox News. However, the fortune didn't smile at the winner either, as Bush's approval rating dropped and then the hijacked planes crashed into the World Trade Center.

The movie was off to a promising start. I was not in it for the historical accuracy of the Bush government's handlings of post-September 11. Yet given the frustrations with this militaristic, and at times, seemingly logorrheic president, it's hard to resist the poke-fun-at-Bush ride that stirred up so much controversy.

The first half of the film was centered on the president and his family's business ties with the Saudi royalties and the Bin Laden family. Moore has openly expressed his dislike of George Jr. (fictitious president) and his take on the unnecessary Iraqi War. In the film he said it again loud and clear by guessing that Bush might be thinking to blame it all on Saddam Hussein during the seven minutes he sat in the Florida classroom after the second plane struck. Yet, while the material certainly provoked a debate, somehow it failed to tickle a nevre and engage me to resonate with it.

Later, the film took a turn for the better as Moore returned to the average-American-folk route. In his hometown of Flint, Michigan, the unemployment rate was skyrocketing. According to Lila Lipscomb, who worked for a job training program agency, the military seemed an attractive option for many less privileged people. She was a proud American who wore a cross and put the stars-and-stripes flag in front of her house every day, Lila later lost her son in Iraq. The second half of the movie is what makes the film more than just Bush-bashing, and speaks volumes to the audience.

Moore's film is not a reflection of history, like many in the documentary genre, but is aimed at the future. The film's distributors even had plans of releasing it on DVD shortly before the election.

However, the film seemed too busy to serve its propaganda purpose (or free speech, depending on your prospective). It lacks the artistic merits to justify the Palme d'Or at the Cannes Film Fest, and I would forever swear off Oscar if it brings Michael Moore another statuette.

Cooking With MSG

Edward Tan

7B Computer

Over the past years there have been many rumours about MSG. But what exactly is this wonder drug/cook-ingredient? First of all, MSG stands for Monosodium Glutamate. It is a salt that is made from glutamate acid. Glutamate acid is one of the most common amino acids found in nature, in everything from meats to vegetables. This amino acid is made into MSG crystals by a fermentation process of sugar cane, sugar beets, corn sugar or wheat starch. Pure MSG has little taste of its own, but is used to enhance the tastes of other foods.

"I mean if MSG was really that bad for you, why are there so many asians around?"

Many non-asian people argue that MSG dehydrates you and makes you sick. This is in fact not true. If you ask me, it is the cheap chinese food that's making them sick. In fact it's not even real chinese food that they are eating. Deep fried chicken balls and egg rolls are not authentic chinese foods. They are the most horrible excuse for food used to rip off people who don't know any better. How these foods became so popular, I don't know. But how did this start off? I would imagine that it went something like this...

"Hey Wang, what can we do with all these left over scraps of food?"

"I don't know Kok, maybe we can sell them at a chinese buffet."

"I don't think any chinese person would eat this garbage, not even at a buffet."

"Why don't we deep fry and sell it to them gway lows as authentic chinese food?"

"Great idea Wang!"

And thus started the mass selling of chicken balls and egg rolls. But getting back to the main topic, can MSG really be that harmful? Due to people's ongoing concerns about the safety of MSG, it has become one of the most intensely studied food ingredients. In 1995, the World Health Organization placed it in the safest category for food additives. Although some people experience allergic reactions after consuming MSG, that does not make it unsafe, since many people have food allergies. Some people argue that consuming large amounts of MSG can dehydrate you and even larger amounts can lead to blindness. I agree with this point of view since equally large amounts of salt can do the same to you. I mean if MSG was really that bad for you, why are there so many asians around?

ARTS CORNER

Ping
Rahul Bhardwaj, 3A Electrical

Would it matter to you,
If I told you how much I love you ?
Would it be the alright, if I sacrificed this life,
to convey the message same ?

When the prize is your love,
No matter what the time and the place,
The flight of wingless doves,
I have no legs but I'll still run the race,

And there is only you, only you in this whole world
Cannot convey how special you are to me, my one oceanic pearl,

Darkness takes over and I burn on the other side,
To measure the quickness of my response,
is asking for me to die,

I can never win a race set by your standards , I am not that fast,
But I will try my best to run, even though I know,
you know I will come through last,

There will be many races I will not finish,
my heart loves you, but my legs just are'nt in it !
Nothing left, head in hands I cry,
the winner may have your love, but I know I still tried,

And it may be my many tears that will make you see,
That I will always love you more,
more than you love me.....

Would it matter though..... anymore to you.....
would it matter if I sacrificed ....??

Ad-hoc Poetry
Phoebe Su, 3A Electrical

you signed onto this
and got what you wan'ed
but it aint what you thought

check yourself, come off it

and the worm says:
"it aint worth the winnin'
if it aint worth the pain"

pickin' pickin' pickin' this apart

you think, yet you think not
trapped in the movement
contradictions of thought

still the worm says:
"it aint worth the winnin'
if it aint worth the pain"

a hundred times a piecin'
piecin' this apart
can't stand the light
been unworthy from the start

and the worm he says:
"it aint worth the winnin'
if it aint worth the pain"

That Silly Thing You Do
Rahul Bhardwaj, 3A Electrical

Written with tears of a tree,
I am no Angel, I am no dream,
And I hope you understand,
I can never attain your level, not in this lifespan.

Its that silly think you do,
When we speak,
I start to act like a fool,
Raised of pride, yet I am suddenly weak.

And I crumble in front of you, only you,
Cause its that silly thing,
Funny little silly thing, you do.

A golf ball in a bowling alley,
Love I don't deserve,
Have you picked the wrong person, probably ?!
Mind spins, emotions stir.

Unable to avoid an Angel out of place,
The spiral of my life,
Helpless, my strength gives chase

I surrender all hands down,
An immortal aftertaste, my never-ending feud,
The sweetest thing, you have my crown,
Cause its that silly thing, that silly thing you do.

Animal by nature, washed sins in dirt,
An untouchable with no purpose to live,
I'll never understand why in this birth,
But now I have love from someone to give.

Fluorescent nectar, delivered on the eve,
You stopped the wound before I could bleed,
I never did deserve this from you,
But its that silly thing you gave, and you give generously too.

And it's a special feeling, when you look at me and smile,
Marooned, all the torture, all the troubles, all missed,
Because of you, you, life becomes worthwhile

Orphaned, homeless, poor, nothing to give,
How can I ever match, ever match,
Match all the love you gave me, to live

Sorry, with a a thousand spears into my heart,
These hands will always be pierced,
And I will always have tears….

For one regret I have this is true,
Its that I will never have,
Never have a funny silly little 'muah!' to offer you

My Mouse
Quoc Huy T. Le, 4A Electrical

Once upon a time i had a mouse named Sly.
I found this little critter inside my apple pie.
When i woke up one morning, i had quite a laugh.
The mousetrap i had set out had snapped that Sly in half.

A Girl And A Guy
Quoc Huy T. Le, 4A Electrical

There he stands. so tall and cute.
I wish he'd come and talk to me.
Or maybe i should go to him.
Perhaps if i keep staring.

Hey! that girl is pretty hot!
I think i'll go and talk to her.

Oh my gosh! he's coming here!
Alright! don't painc! just calm down!
Look away and fix your hair.
Pretend that you don't notice him!

I think i'd like to ask her out.
"Hello there, lovely. quite a night."
"Hello you. yes, it's quite a night."
Oh please! oh please! tell me your name!
I really really want to know!
And yet, i do not want to ask.

Now introduce yourself, my man.
"My name's Jack. what's your name?"

Yes! he asked me! now my turn.
Oh no! i can't say my name's 'Jill'!
Should i say that i'm 'Jillian'?
Nah. "my name is Jill. just Jill."

I gotta get this girl outside.
"So Jill, you want to take a walk?"

Do i want to take a walk?
A walk with you? of course i do!
I'd better not look too excited.
Just a calm reply, "um, sure."

We're outside now. let's ask some questions.
"So, what are you studying here?

Right now i'm studying you, you hunk.
Oh gosh. why don't you hold my hand?
Or better yet, carry me home!
"I'm, um, majoring in History."

Tell her what you do, you dope!
"Right now i study Chemistry."

'Chemistry'? well you're in luck.
There's quite a bit between us here.
Please tell me you're a vegan too!
"So what things do you like to eat?"

"Chips, chocolate, fruits and bread.
I can't eat meat. it's just not right."

I want to marry him right now.
I want to marry him right now.
I want to marry him right now.
"That's cool. i'm a vegan too."

She really is quite beautiful.
"You really are quite beautiful."

Is he for real? what should i say?
Say something nice, right back to him!
"Thank you, you're beautiful as well."
Oh my. that sounded really dumb.

Hope she'll go out with me sometime.
"Want to go out with me sometime?"

Don't get excited! calm yourself!
Now we must play hard to get!
"Um, i don't know. i'm just not sure."
Please ask again! please ask again!

Well, you tried, better luck next time.
"No prob. i guess i'll see ya 'round."
Goodbye!

Regulars

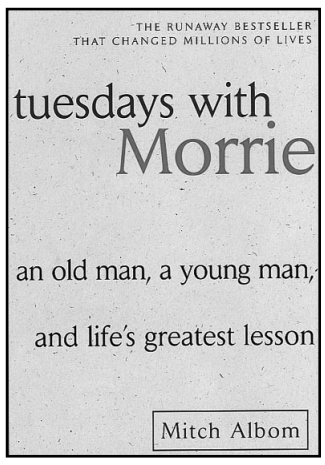
Last Lecture in Life: Tuesdays With Morrie

Elisa Zhang

Co-op student

As a twenty-some-year-old, I often find myself wondering what is the purpose in life? What do I want in life? What are my values? What are the most important things in life? We are at the age of confusion. We try to find balance between busy school work and exciting life experiences. We try to adjust ourselves in various relationships with others – parents, teachers, partners, friends and lovers. We question about love, marriage, happiness, careers and purpose of life. Throughout our life journey, we often seek for that certain person to guide us and to point the directions in our lives. After reading Tuesdays with Morrie by Mitch Albom, I felt that I had just met such a teacher in my life.

Do not let the "non-fiction" label of this book stop you, even if you are a novel reader. As a successful sports journalist, Mitch Albom had sometimes lost himself in his piles of work. One day, he discovered that his favourite university professor, who he had not kept in contact with as he promised, was going to die. Driven by guilt, he decided to see his old teacher, Dr. Morrie Schwartz. Morrie was a very unique individual. He was a person full of love and emotions that draws people towards him. He was full of life despite the fact that he was diagnosed with advanced amyotrophic lateral sclerosis (ALS), a disease with which the patient slowly loses the control nerves of his entire body and dies accordingly. This is a disease that destroys bodies and souls slowly. Morrie, on the other hand, viewed it as a gift for him to realize the value of life and to spread his knowledge and lesson of life to others. It is under these circumstances and with extreme affection towards Morrie, that Mitch decided to visit Morrie every Tuesday to be educated about life. Through the meetings, Morrie grew weaker and weaker physically, while Mitch became more and more alive under his influence.



After many years of separation, Mitch eventually found himself and his life mentor again. He learned lessons on forgiveness, happiness, self-confidence, careers, money, love, marriage and purpose in life. As Mitch described in the introduction – the last class he had with Morrie took place at Morrie's house every Tuesday, and the subject was life.

This book is a very fast read. When I finished it, (which only took me one day) I was deep in thought. It is one of those books that you want to and can read over and over again. It has changed my way of viewing the world and how I should live my life. Its message is powerful and honest. I loved the book so much that I would read passages to my parents and friends, who also found it very thought-provoking.

Another of Mitch Albom's reccommended pieces is *The Five People You Meet in Heaven*.

GenE 100: The Real McCoy!

Dan Arnott

1B Environmental

Welcome back to Engineering History 100! Today, we'll be looking at some of the ideas, inventions, and engineers that helped to make the practice what it is today. Make sure you take some notes, because this will be on the final.

Until the early 18th century, most construction and manufacturing processes took place on a small scale. The world population was much smaller at the time, and a few skilled craftsmen could usually provide the populace with all the manufactured goods that they needed. A few engineers provided all the engineering services necessary. But people had ideas. With the invention of the steam engine by Thomas Newcomen in 1712, and dramatic improvements in the textile industry in the 1700s, a lot more work could be done easily, and more goods could be produced. The steam engine was improved by James Watt, making it more efficient, and soon people couldn't get enough of them. Steam engines could be used to pump water (their original use), propel boats and vehicles, and provide power for newly-developing industries. This is where mechanical engineers really started to thrive.

While all this was going on in Europe, things were starting to get exciting for engineers in Canada as well. The Welland and Rideau canals were about to open up new trade routes and commercial opportunities for the growing country. A colourful engineer and surveyor working on the Rideau Canal was John MacTaggart. He never completed his studies in Math and Physics at Edinburgh, but was highly recommended by Edinburgh and rose to the rank of Clerk of Works on the Rideau Canal in Ottawa. However, a few years later he left, supposedly dismissed. He wrote a book, "Three Years In Canada" on his engineering experience in this great land. Unfortunately, he died at the young age of 39 from heavy drinking. Sounds like he would have fit right in at Unit 36.

Of course, no discussion of engineering history in Canada would be complete without mentioning Sir Sandford Fleming. He is well known for the Sandford Fleming Foundation, but what did he do? First off, he immigrated to Canada from Scotland at the age of 17, and worked as a surveyor for many years. He soon became Chief Engineer of the old Intercolonial railway, and was appointed as the Chief Engineer of the proposed Canadian Pacific Railway in 1871. For those who don't remember Grade 10 history, the railway was VERY IMPORTANT; without the mass transportation and community it provided, we might be living in igloos like everybody seems to think we do. He also implemented the concept of 'time zones'. I'd say that earned him a foundation.

There are still dozens of important Canadian engineers to talk about, but due to time and space, we will only cover one more today. Elijah McCoy was the son of an escaped slave from Kentucky. Born in Colchester, ON, in 1844, he studied Mechanical Engineering in Scotland, and returned to work on the railway. Soon, he invented a device for lubricating steam engines while they were running, which proved to be so popular and essential that no new machine was built without it. Many imitations started popping up, so whoever bought a new steam engine would always make sure to ask if it contained 'the real McCoy'.

Next time, we'll talk about engineering in the 20th century, where your iron rings come from, and a few more interesting engineers.

the Iron Inquisition

Tsu Chiang Chuang, 4A Computer

How Did You Celebrate Canada Day?

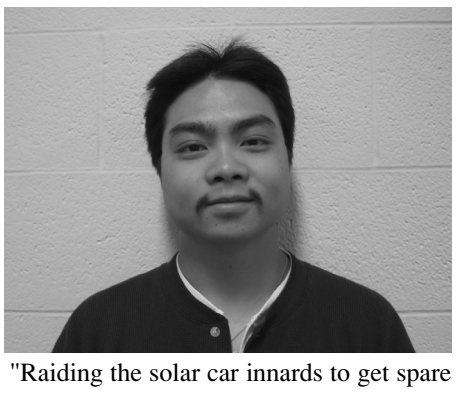
"Cruising in the solar car trying to pickup girls... any takers?"
Chris Ho, 1B Mechatronics

"Looking for a drive shaft and swearing at the solar car."
Cameron Bruce, 2B Mechanical

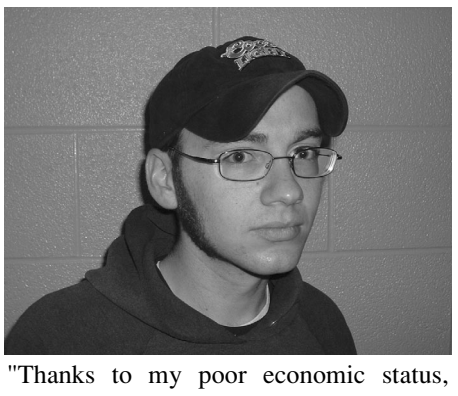
"Playing hide-and-seek with GPS unit of the solar car."
Cliel Gilbert, 1B Computer

"Contemplating about running away to the Bermudas with the solar car money."
Daniel Yum, 4A Computer

"Instigating an Artsy revolution within the solar car team."
Emilie Smith, 2N Poli-Sci Engineering



"Raiding the solar car innards to get spare parts for my bike."
Huy Le Tu Quoc, 4A Electrical



"Thanks to my poor economic status, drinking a rough mix of ethanol, Listerine and Kool-Aid."
Dave "Sideburns" Girodat, 2B Civil

"Taking a sunbath."

Midnight Sun Solar Car