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Dean Sedra Comments On Vision 2010 Progress

AMRITA YASIN
3B CHEMICAL

Many of you may know about the Vision 2010 Campaign – “A Blueprint for Excellence in Engineering Education and Research”, a strategic plan drafted in 2006 by the Faculty of Engineering Dean, Adel Sedra. As it enters its final year of implementation, *The Iron Warrior* interviewed Dean Sedra to comment on its progress.

IW: Would you like to comment on the general progress of Vision 2010?

Dean Sedra: I am very happy to comment on the progress. We are at the moment doing exactly what we intended to do. Every spring we have published a document which provides the progress report over the previous year. At the moment I can tell you what we think we have done over the last four years. On the undergraduate front we have added new programs: Nanotechnology Engineering, the first cohort of which graduates in June 2010 and more recently we added a program in Management Engineering. We made some progress on addressing issues of retention and on improving success rate especially of first year students, but it's still a work in progress.

We also accept international students now - we started from 0 in 2003 and the number of international students are now up to about 6%. The vision 2010 goal was to reach 8% so we are not exactly there.

At the graduate level we made dramatic changes. We nearly doubled the number of graduate students - about 1800 students are currently enrolled in doctoral, research masters and professional masters programs. I am particularly happy with the new, interesting and innovative masters programs offered that are intended for working engineers, some of which are delivered completely online. You can complete those programs without ever setting foot on our campus. We also increased the number and variety of graduate courses and perhaps most importantly we have increased our faculty complements. When we started out we had 200 professors; we now have 260 professors. It creates a more intellectual teaching and research environment for all concerned. We have also increased the number of key staff positions. I should mention that the position of the person sitting right in front [Robin Jardin], came as a result of Vision 2010. We talked about improving student liaison, and working with students and adding Robin was an element in that direction.

In research, we almost doubled the money that comes into research. This money wasn't given to us in gifts; we won it through grants and contracts that we competed for with other schools and scientists. I am happy to say that when we started this process we had about \$27 million a year and this year we close the books with over \$50 million a year.

On the space front, we are adding 400 000 ft² of new space to Engineering. Chemical Engineering will be the beneficiary of a new building E6 which we broke ground



Mike Seliske

E-6 construction can be seen reflected on E-5 which stands almost complete

for last September, and it will be substantially completed by March 2011.

IW: When do you expect it to be in functional form?

Dean Sedra: I would say by Fall 2011. E-5 is going to open this spring. The first two floors will be for the engineering teams. We provide space for research and teaching space for three different departments [Mechanical Engineering, Mechatronics and Systems Designs]. Quantum-Nano Centre which will be the home for Nanotechnology students and Waterloo Institute for Nanotechnology (WIN) will open at the end of 2011.

IW: I am guessing that space will be shared between Engineering and Physics department?

Dean Sedra: Half of it will belong to IQC [Institute for Quantum Computing] which we and physics are part of. The other half will be shared between Nanotechnology, Chemical Engineering, Chemistry, Electrical and Computer Engineering so it's a multi disciplinary building. I should also mention that we picked a number of different research areas as part of Vision 2010 and started institutes and centres for these areas. One is Waterloo Institute for Automotive Research (WATCAR) which provides focus to all our work in automotive research and brings together professors from different departments and faculties. We also have Waterloo Institute for Sustainable Energy (WISE), a new institute that has 70 professors from Engineering, Science and Environmental Studies.

IW: As we are talking about space, would you like to say something about Engineering 7 (E7), because I personally have only seen it in books?

Dean Sedra: I would love to say something about E7 except that it's not happening yet. E7 is only in the planning stages. It's going to be attached to E5 via a bridge and will be attached to E6 eventually. E7 will be the same size as E5, about 170000 ft² and we have the plan ready to go. We don't quite have all the money we need to

complete E5 and E6. We need around 100 million dollars and we are 20 million dollar short. Right now we are trying to close that gap and E7 will come after E6.

IW: I was going through the 2009 progress report and it said you hired fewer faculty members than targeted: 248.8 versus 277.3. Were there any particular reasons?

Dean Sedra: There were 2 reasons: One is the economic downturn and secondly, UW has a hiring freeze so we are only allowed to hire the mission critical positions. We will have to take 1 or 2 more years to complete our target of 300 faculty members but that's alright because my second reason is we don't have the space right now. We have to slow down to have the space catch up with hiring and increasing number of undergraduate students.

IW: You talked about the two new programs that have been introduced. In the near future, do you have any plans of introducing any new programs?

Dean Sedra: There are some proposals on the table for some new and innovative undergraduate programs. I am of two minds about that: we are very large already. We have nearly 6000 undergraduate students. We are the largest in the country and among the largest in North America. The question is does it make sense to grow? We are not sure. We will have to weigh pros and cons.

IW: Can you specifically name the programs?

Dean Sedra: One is Bio-Med engineering and the other one is Architectural Engineering which brings in the School of Architecture together with the Department of Civil Engineering and maybe some participation from Systems Design so it's an interesting program.

IW: The 2009 priorities talked about the Nanotechnology Accreditation visit. Can you comment on the status of the Nanotechnology Engineering program Accreditation?

Dean Sedra: The visit happened and

went very well and we are waiting for the report from the visiting team. CEAB will make a decision in June after the visiting team prepares the report. I am very optimistic because the visit went very well and we have a great program but until the final decision we can't be confident.

IW: Under communications goals the Vision 2010 plan also talked about improving Engineering Faculty web presence, as a part of the new visual identity. What has been done in the past year to improve that?

Dean Sedra: We have a new web designer working for us. The university is also in a big web design project and we are definitely a part of it. We have been participating in the discussions about a new visual identity and we are adopting some of what the university is doing, but not all. We are however going to maintain the crest; it will stay on our business card and letter head so we are not adopting the modern look that is being suggested. We have picked purple for Waterloo Engineering with a push from Robin.

IW: When is this web design expected to be completed?

Dean Sedra: The university web design will take about 9 months, and probably will be completed by the end of this calendar year. We have to use the same feel as the UW campus website. We are working with them on the content on the engineering web pages. I am not sure how the coordination will work.

IW: What are your comments on the decrease in OUAC applications choosing UW?

Dean Sedra: That's a good question. We don't know, but I am very concerned. We have made an initial assessment to inquire why and there are all kinds of answers. Maybe some self selection among students who know they can't get into Waterloo Engineering so they are not applying here. Secondly, maybe because these numbers are largely coming from the GTA and due to the economic situation some students do not want to go very far away from home. So there are explanations of that sort but maybe we are not doing as good a job in marketing ourselves as a school. Will we be able to meet our target? Yes, we will be because this year like every year we have a lot more applicants. So I am not worried about that but I am concerned why our numbers are dropping. We just can't be sitting; we have to work hard to find out what's going on.

IW: At the EngSoc meeting you mentioned that Engineering Faculty has hired a lot of co-op students. What specific measures is Engineering Faculty taking to ensure that more co-op students get jobs in the coming terms?

Dean Sedra: First, I just looked at the numbers for this term; 97.6% students are employed which is much better than what we expected. There are still these 2.4%, almost 76 students that didn't get jobs. One student who doesn't get a job is a problem.

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Letter from the Editor

Don't stress too much - the world doesn't end today



AMRITA YASIN
EDITOR-IN-CHIEF

Dear IW page # 2,

Welcome back from what I hope was an awesome Reading Week. Congratulations to fourth years who got their Iron Rings. Yayyy to Vancouver Winter Olympics. Happy Belated Family Day. Happy Belated Chinese New Year. Happy Belated Valentine's Day. Whoa! A lot has happened in the last three weeks and honestly I have missed looking for interesting stories, spamming peoples' emails for submissions and our beloved production weekend when I get to spend the entire weekend in a room of concrete walls with no windows and hearing the rumblings of an annoying fan. Catching up with sleep and watching the Winter Olympics have been the highlight of my reading week. 4 gold, 4 silver, 1 bronze so far and overall good performances by Canadian athletes have given me the adrenaline dose which will hopefully keep me going through the term. Lo and behold! How many of you knew Justin Lamoureux, a Canadian snowboarder, part of men's half pipe team in Winter 2010 Olympics is a UW mechanical engineering undergraduate? And people think engineers are nerds. Hmph!

I promised you a birthday party at the beginning of term and here it is. In celebration of IW's 30th anniversary we will have a showcase of old archives. It will give you a chance to look at old newspapers and observe how the content has varied in some aspects while many issues have remained the same. There have been changes in layout and overall finishing of the paper too which show the effort that people have put in over the years to make this newspaper better for you. I invite you to come out on March 2nd - March 4th in the CPH main foyer between 11:30 AM - 1:30 PM to take a glimpse into the past. We will also give free hot chocolate on Thursday!

I may have ranted about this previously but for me one of the most stressful part of being the EIC is coming up with an editorial topic - something that is worthy enough to keep you occupied with what looks like a huge wall of text (bordered by masthead and such things to show some level of mercy on both the reader and the writer) and interesting enough for me to write an entire page on. The fact that I had the entire reading week with only one midterm coming up this week doesn't help at all. This also means that I wrote four midterms in the week prior to the reading week, had an infinite number of assignments and lab reports due, and at-

tended classes, which left me with little time for trivia such as food, shower and sleep. Not that I haven't heard of worse schedules but for me it was the most hectic and stressful week of my undergrad so far. Surprisingly, although I had less time to prepare for midterms later in the week, I felt that I performed better as my stress level decreased. I am not a professional psychologist or psychiatrist or counselor or anything fancy like that but I think I am a good candidate to talk about this topic because I have responded to similar situations with varying levels of stress throughout my life and seen the results.

Being mentally composed and maintaining a somewhat decent level of sanity is important to all of us, because we have to deal with varying levels of stress as long as we live. But before analyzing our attitudes, we have to understand that stress is subjective and something that makes you throw a fit might make your friend cringe his eyebrow for a split second. It can be because you are more sensitive to that particular issue, you have different priorities or maybe just because the other person doesn't get bothered too much by anything at all. In the end, it does boil down to individual personality traits and how you perceive and interpret the world around you. Having said that, humans are not stone-clad constant beings and we evolve based on our experiences and circumstances. Therefore, if not having a hundred friends isn't bothering you as much as it used to back in high school there is nothing to worry about. It is something that you as a person have ruled out as insignificant.

Secondly, stress is not altogether bad; a lot of people feel that they are more creative in their thoughts and more productive as deadlines loom closer and this is just one aspect of it. Scientific research has also shown that stress promotes personal growth and self-improvement and lets you adapt to changes in life. We should welcome challenges and adverse events in our life as opportunities to build our character and learn new skills. It is a part of human growth and equips us with insight to lead a healthier life. But if assignments are making you loose sleep at night or giving you nightmares, or anxiety about something is keeping you from focussing and pursuing your goals, it's time to actively change that behaviour.

The first step, in my opinion, is to share your thoughts and feelings with close family and friends. Letting go of worrisome thoughts can do wonders. If you think you need professional help go for it; there is nothing disgraceful about making conscious efforts to improve one's lifestyle.

Keep yourself focused on your goals and in perspective. Always think about the long term impact of your decisions and actions.

Is studying for a quiz more important than your brother's birthday? Is studying for an exam more important than your sister's wedding? These are the kinds of situations a lot of us have faced or will likely face in future and we should make wise decisions. A milestone that meant the world to you five years ago might not be too significant when seen in retrospect.

Be optimistic towards challenges, do your best and keep realistic expectations about the outcome. And don't lose hope if the results dissatisfy you. Ups and downs are a part of life and getting too nerve-wrecked about them doesn't take us anywhere. Draw reasonable limits for yourself; if you are not too worried about falling marks it might be OK - you have made it to university which is an achievement in itself. However, you do need help if failed courses don't bother you. The same goes for those students who aim for excellence; you will be giving your brain unnecessary work-out by agonizing over getting a ninety-nine percent instead of a perfect.

Try to stay away from tension creating elements; if things are not working out with friends or relationships and it's keeping you distracted, maybe it's time to move away from them - talk it out. Don't watch too much mainstream news, or movies that disturb you. Indulge in activities that make you happy and give you a sense of satisfaction and worth such as hobbies, social service, volunteering etc.

In the end, if my rant didn't get any wheels churning in your mind research has shown that high stress levels lead to personality disorders and yield a higher risk of chronic diseases such as heart diseases, cancer, stroke and even immune system malfunctioning. Not only that, too much tension on minor routine matters can add up and can affect mental and physical health significantly.

With these thoughts I reach the end of my editorial. I know I haven't given a full account what's included in this issue and that's partly because I don't have enough space left and partly because I feel like it's something I can get away with by copy-pasting from any of the previous issues anyway. Some interesting articles to read in this issue include an update by the PDEng Task Force, Canada's first gold in the Winter Olympics, tips on finding housing, launch of NASA shuttle mission and some very thoughtful opinion pieces on Mother Language Day, Valentine's Day and the pro-life ad shown during the Superbowl game in US. My last sentence will definitely be a copy-paste - provide us with feedback on how we are doing!

Smile C:
Amrita Yasin

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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Student-at-Large Wanted for A-Soc & B-Soc

Hello beautiful readers,

The Iron Warrior is looking for volunteers for Student-at-Large positions for A-Soc and B-Soc. Students-at-Large are members of the IW Advisory Board and represent the non-biased student view. Students-at-Large must be fee paying members of the Engineering Society. They are required to attend two Advisory Board Meetings at the beginning and end of each term and responsible for reading the draft issue of IW to ensure that the content does not violate the guidelines presented in the Policy Manual. They cannot be on the IW Staff during their tenure as Advisory Board members and cannot submit content to IW.

If you are interested please send me an email at iwarrior@engmail.uwaterloo.ca or visit the IW Policy Manual on the IW website.

Issue #4 Deadline:

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Send your submissions to iwarrior@engmail.uwaterloo.ca

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

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

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Letter To The Editor

Dear Editor,

This letter is a follow-up to my 3 letters published in the last three issues of the fall term concerning the PDEng debate initiated by the Independent Review and the response of the administration to it.

I wish to congratulate Sasha Avreline for his excellent representation of the students' interests on the PDEng Renewal Task Force that is presently revamping the course. Thanks goes to David Liu as well who is splitting his precious time between his academics, presidential duties and Renewal Task Force duties.

The comments that follow are NOT to be construed as criticism of the renewal process. They are intended as criticism of the present PDEng incarnation, which, INCREDIBLY, is still in operation in spite of the findings of the Independent Review. In respect for the students and the calibre of the reviewers (one of whom is the President Elect of PEO), the program should have been suspended until the review process is completed!

There is also the danger that after the renewal committee submits its recommendations, the administration simply ignores their findings and carries on with "business as usual". We hope that this is not the case BUT the following ethical questions should be examined and debated PUBLICLY and this journal which is internal to our Waterloo Engineering community is the place to do it.

In its present and continuing form, the method of funding creates a conflict of interest which raises ethical questions.

The two interests that are in conflict are:

1. The Proper Treatment of Students in a Professional Engineering Degree Course

Under normal circumstances the core program of engineering students is dictated by the material required by the profession and is inspected regularly by the Canadian Engineering Accreditation Board (CEAB). Optional courses are given at the discretion of the various faculties at different universities but attention must be paid to certain requirements of the content of non technical education of engineers. **At no time should funding be the motive to add to the already heavy load of engineering students.**

Problems with professors and course presentation arise from time to time and respon-

sible faculties provide avenues of complaint usually in the form of class professors representing the needs of students. If informal resolution fails then more formal structures are typically provided. If a course is "going off the rails" the solution must be swift enough to salvage credit for the students before the end of the term. Sometimes (rarely) this involves replacing the instructor. The point is that priority is given to the students' need to gain the proper knowledge to proceed to follow-on courses in the next term(s).

2. The Desire to Raise Funds for Operating Costs

There are many ways to raise funds to operate a university. The first and most obvious one is to obtain direct funding from the Ministry of Training, Colleges and Universities according to the law of the land. Other sources are alumnae and industry. **However when the addition of courses becomes a method of funding then fund raising comes in direct conflict with the proper treatment of students.**

In this particular case, funding interests motivated the following actions which created the direct conflict:

* **The PDEng course was given in the work term.** This caused most of the problems as described in the enclosed **Independent Review**. The assignments were too long. This meant that the students had to steal time from their employers or arrive for work exhausted and frustrated from the arrogant treatment they were receiving and outrageous marking schemes by which their work was evaluated. This interfered with the work requirements of employers who often wanted the students to work overtime when production schedules demanded. Students were prevented from enjoying their after-work life in new locations and cultures. In some cases students had difficulties communicating with the on-line presentation of the course due to their work-term location.

* **The PDEng course was expanded to 5 terms.** The useful content of the course could easily be taught in a partial one term course consisting of 10-15 hours of lectures. Much of the content had nothing to do with engineering and the requirements were rarely clear resulting in almost automatic resubmission of initial presentations.

* **Normal swift resolution of course problems described above was completely ignored for five years.** The students pe-

tioned, cajoled and pleaded for relief from this irritant and got absolutely nowhere. They had representatives on the Senate, the PDEng Steering Committee and the Engineering Society, all of whom tried every avenue of complaint. There never should have been a need for an independent review which thoroughly embarrassed everyone. There is abundant evidence that if there had been no review then nothing would ever have been done. The students' needs would have been ignored indefinitely in favour of whatever financial advantage PDEng gives. **No engineering student of ours should ever be subject to this arrogant and unprofessional treatment.**

Here is the corresponding ethics problem:

Engineering students who work hard on both their academic and work terms are being asked to do more work, much of which is irrelevant to their program, in order that their faculty qualifies for more support and are thus being used as involuntary fund raisers. They already have huge workloads and pay large tuitions and assume considerable debt to get their education. As citizens and students they are entitled to be funded by taxpayers for their education without being put to work by their faculty to do so.

If this method of funding continues to be allowed, more and more faculties and universities will adopt it; thus increasing this misuse of students.

This entire fiasco has set a terrible example for 5000 engineering students. I make reference to the article written by two students in the November 18 issue of *Iron Warrior*. In it the authors, Tamir Duberstein and Samuel Huberman, both Mechanical Engineering students, very cleverly show what PDEng actually taught the students ... a sobering statement of the cynicism created by the administration. The irony is that the PDEng course, which is supposed to teach engineering ethics, became the vehicle of this unethical behaviour. The students were well aware that they were being used after five years of being stone-walled.

Recommendations

1. No core course can be added to a professional engineering program without the approval of CEAB. This approval must include an examination of the **length** as well as the **content** of the course. This will

prevent the padding of content with useless material.

2. No funding can be obtained for non-core courses except **voluntary** ones (non-technical electives or courses in the chosen areas of specialization). This will prevent "side-door" or "creative" funding by the addition of "required" work.

3. There must be a complete accounting for every red cent of PDEng funding. Otherwise the students will not trust that the new version of PDEng is not simply new labels on old bottles. Everybody must be informed of the following:

* **How much money comes from the Ministry per year to fund PDEng and for what is it used?**

* **What financial advantage is gained by presenting PDEng in the work terms, a practice which causes most of the problems?**

* **What financial advantage is gained by increasing the length of the course to cover five terms? This practice caused all the extraneous and useless material to be added to the course.**

We must eliminate "bottom-line" morality that places growth and "being number one" above fair treatment of our hard working students and above ethical practice which is observed as example by these very students.

Yours truly

Donald A Fraser,

Senior Demonstrator and Head TA (retired)

FEDS Elections Results

AMRITA YASIN
3B CHEMICAL

FEDS Elections Results were released on February 12, at SLC by Christopher Neal, the Chief Electoral Officer for FEDS Elections. Team Yellow won all the executive positions; Bradley Moggach as President, Sarah Cook as VP Administration & Finance, Nikki Best as VP Internal and Nicholas Soave was the acclaimed VP Education.

Results for Senator-At-Large haven't been released yet.

The complete breakdown of votes for executive positions is given below.

President	
Allan Babor	455
Matthew Colphon	631
Bradley Moggach	746
Jesse van Amerom	277
Declined	175
VP Admin & Finance	
Sarah Cook	1258
Matthew Waller	728
Declined	285
VP Internal	
Nikki Best	1300
Jenna Goodhand	641
Declined	324
VP Education	
Nicholas Soave	Acclaimed



Moggach, Best and Cook pose for the media after the FEDS elections results were released

PDEng Task Force Update

SASHA AVRELINE
PDENG TASK FORCE

In this issue of the *Iron Warrior*, I would like to give everyone a brief update about the PDENG Renewal Task Force. First, a brief reminder about what the PDENG Renewal Task Force is. The PDENG Renewal Task Force was put in place in late December of 2009, by the Dean of Engineering (Dr. Adel Sedra), and its main purpose is to come up with recommendations on how to improve the PDENG program. The Dean has decided to set-up a fairly small task force in order to effectively make progress. The task force is chaired by the Associate Dean of Co-op and Professional Affairs (Dr. Wayne Parker) and consists of representation from faculty, co-op, PDENG and the student body - which are David Liu, current VP-Education of EngSoc A and myself.

So far this term the task force has been meeting at least twice a week and has been taking two general directions for improving PDENG - (1) To conduct a full scale rebuild of the program and (2) To implement some short-term fixes to the current program. As far as the first direction is concerned, at this point we have been able to go back and review some of the underlying assump-

tions about the program and also come up with the "skeleton" outline of what the new courses will be covering, and what will be their basic structure and purpose.

On Friday, February 12, 2010 the task force released all of the recommendations thus far and the structure of those courses on its website - <http://www.engineering.uwaterloo.ca/pdengrenewal>. I highly encourage you to log into the website, read through the recommendations and provide us feedback. This will only take about 10 minutes and it is very easy and convenient to provide recommendations. Furthermore, your recommendations will be of great value to us as otherwise we will never know if you have any issues with the proposed changes and the new structure - so please provide your feedback. Feedback will be accepted until March 1, 2010.

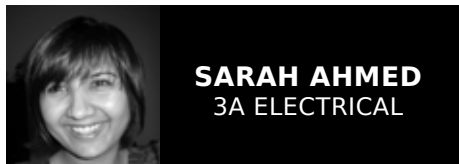
At the same time we will also be gathering feedback from faculty, alumni and CECS in order to ensure everyone is connected and engaged in the new PDENG review process. Finally, keep in mind that those recommendations are based only on 5 weeks of the Task Force efforts and there are 10 more weeks to go - therefore if a particular issue hasn't been addressed (i.e. mentors), it is probably due to the fact that

we have yet to discuss it.

As far as the second direction is concerned, a smaller sub-group of the task force is having additional meetings in order to discuss which changes can be done to the current courses right away in order to benefit the current students. Based on your input (that I gained from the EngSoc mailing list) and based on input from the faculty and PDENG staff we have gathered a short list of all possible changes that could be implemented immediately - either if at all possible in the current term or in time for the summer 2010 term. The suggestions that have been considered thus far are also posted on the web site - <http://www.engineering.uwaterloo.ca/pdengrenewal>, and there are a lot more to consider. In the meantime please provide your feedback on those suggestions as well!

This is all for now, stay tuned for more updates. If you have any questions, concerns and/or suggestions please feel free to reach me or David by e-mail: aavrelin@gmail.com, uwaterloo.ca or asoc_vp.edu@gmail.com.

Budget Crisis for First Nations University of Canada



SARAH AHMED
3A ELECTRICAL

The First Nations University of Canada will have one fifth of its funding cut after April 1st. This is because Government of Saskatchewan is withdrawing their \$5.2 million of funding from the university's annual budget. The funding from the provincial government accounts for one-fifth of the university's budget.

The reason for the cut in funding was stated to be the provincial government losing confidence in the university's board. This decision by the provincial government was announced while a meeting of First Nations leaders was being conducted just outside of Saskatoon. In the meeting, students of the university asked for the board to be replaced;

however, their demand was not granted.

This is not the first budget crisis for First Nations University of Canada (FNUC); the government of Saskatchewan had previously stated that it was going to hold back \$1.2 million in grants, until an external review of the university was conducted.

FNUC has been plagued with allegations of financial irregularities and accusations of endangerment of academic freedom since 2005. The Saskatchewan government is asking for structural reforms in the university and for the University of Regina to take care of the current students of FNUC.

The First Nations University of Canada is controlled by the Federation of Saskatchewan Indian Nations (FSIN). The FSIN is currently planning out its next moves and hopes to have some reports on the financing of the university by March 1st. In response to the provincial government's actions, the Federation has said that it would have liked

the matter to be kept private and not publicized before both parties could come to a conclusion. The chairman of the board of FNUC, Clarence Bellegarde has stated that Rob Norris, the Minister of Advanced Education, should have discussed the matter with the Federation prior to the announcement.

As for the students, well, the provincial government has confirmed that the funding will be provided so that the current academic term is completed.

The Federal Government has refused to increase its funding for the university following Saskatchewan's withdrawal. The other sources of funding for FNUC, such as the department of Indian and Northern Affairs Canada, are holding back \$1 million until the university provides progress reports.

The university is currently in the process of getting an interim government in place and actions are being taken to replace the board. The University of Regina is currently

overseeing the administration of FNUC. Chief Guy Lonechild, leader of the FSIN, has stated that these changes are being made to ensure that the university does not lose its federal funding. He has also said that the budget constraint has put further stress on the relations between the First Nations and the Federal and Provincial governments.

The university's current predicament begs the question of its existence: How necessary is it to actually have a university devoted to Aboriginal studies? The First Nations University of Canada does not restrict its admissions only to First Nations students, but serves as a bridge between the Aboriginal communities. It has specially designed programs that respect the "academic, cultural and spiritual needs of First Nations' students". Losing this university to budgetary constraints will be a great blow to relations between First Nations and the Federal and Provincial governments.

CBS - You've Done It Again...

WU XIAOYU
2A ELECTRICAL

I don't even know why I am writing this. See, this article is going to talk about a particular subject matter, but it treats it in a manner that somewhat demeans the very act of discussing that subject matter itself. If talking about "A" is stupid, is telling others about the stupidity of "A" stupid too?

Woefully unaware of the ontological conundrum I have just created for my poor poor head, I shall endeavor to engage in an exploration of the "Meta" nature of American corporate media today.

What am I talking about? The pro-life advertisement that Evangelical Christian advocate group, Focus on the Family, bought during the Superbowl game is a prime example of a self-serving media structure that constructs the debate like they want you to see it. By "they" I mean the conglomerates and interests paying for the salaries of the network executives. And by "salaries" I mean the astronomical numbers that, sadly, I may never get to see in my own paycheck in this life time.

The ad itself, you may observe, is actually not the kind of "in-your-face" and "foot-in-ass" thou shalt not sin messages we have come to love from the Bradley Bunch that is

Evangelical preach-hood. Some of us having fond memories of footage from Jesus Camp, the 2006 documentary by Rachel Grady and Heidi Ewing may understand what I'm referring to. No, that advertisement was subtle and unobtrusive and in all manners a mere personal reflection of a woman who got lucky and fell in the statistically significant proportion of people who have benefited from modern healthcare technologies and methods to give birth to Tim Tebow. I think there was a reference to the doctors who did the fine job of bringing Tim to this world. No, there wasn't? Oh...

And of course, modern health services orientated at using medical technologies to save lives and enhance human welfare are not the target of some ultra-fundamentalist anti-abortionists in America, who engaged in a wholesome and well-mannered expression of ideological differences with George Tiller last year in Wichita, Kansas. But I digress.

Even before the controversial ad was aired, FOX News (or as some like to call it, America's right wing Propaganda Machine) was already dedicating airtime on "discussion" of the issue. Various statements excreted from the NPO which paid for the ad are discussed, and the "message" that the ad was trying to send was contended. Google Trends showed that

interest in "Tim Tebow" during the Superbowl period was sufficient to surpass "Haiti earthquake". Three million dollars was enough to buy enough coverage to divert the attention of American audiences from one of the largest humanitarian crises in recent times to a dead issue pushed forth by a religious group. As Aldo Raine said, "I'd make that (damned good) deal". Luckily, Canadian search results were less worrisome, and hits on general Superbowl terms, much less those surrounding the abortionist ad, did not come close to interest in the Haitian relief efforts.

The illusion of debate is further propagated by shows like The O'Reilly Factor, where a woman's rights advocate was torn apart by Bill O'Reilly with regard to her pro-choice message. Look it up on the interwebs to see if old Bill is actually trying to be fair.

This is a typical scenario where the issues are hotly contested because they are hotly contested, not because they are worth contesting.

It has become less about the issues themselves and more about the hype, and it would be a severe misfortune for young and impressionable minds to be brought up in a media environment that promotes such wanton disregard for actual debate in exchange for a focus on hype and diversion from a clearly biased media content provider.

Vision 2010

Continued from Page 1

But in terms of 'Have we done well?' Yes we have. The faculty subsidized jobs for about 100 students which is expensive but it's money well spent because students are going to get a really good experience working in research positions.

IW: Are you planning to do the same for the coming term too?

Dean Sedra: We will assess what's happening. It's too early to make an announcement.

IW: One last question, in the Vision 2010 blueprint it was stated that as a part of reviewing the curriculum you were looking to have a more common first year.

Dean Sedra: That was the initial plan but we have made no progress.

IW: Why would you prefer that over what we have right now?

Dean Sedra: For two reasons: one is, students come from high schools and many probably still don't know what disciplines they want to take. Some do but a lot don't. When I talk to high school students, they are good at math and physics and chemistry but they don't have a good idea of what kind of engineering they want to take, so having a more common first year will facilitate this choice after first year. The second reason is that students come into our program and then they decide to switch and switching is difficult. But I am going to give up on this goal because we haven't made any progress.

IW: Why wasn't any progress made? Is it due to hesitance on part of the departments?

Dean Sedra: Universities are democratic institutions. The departments have to agree. I can't order anyone to do anything. Each department said it's a good idea but we have to have these concepts and so on. We made progress on some fronts. Chemical and Civil are much closer than before but Electrical Engineering moved a little bit farther away. It's a good idea in theory. Maybe it doesn't work at Waterloo where students go on co-op right after 1A and it's easier to get jobs if you come from a particular engineering background.

IW: Are you looking forward to form a five-year plan? And when will be the plan drafted?

Dean Sedra: There will be lots of consultation and brainstorming involving everybody who works and learns here. It will involve faculty members, undergraduate and graduate chairs, staff and students, in helping us to decide where we go from here. The Progress Report for Vision 2010 will be published in spring and then we will publish the new plan by the end of the new calendar year.

IW: Thanks for your time Dean Sedra!

A Window To Our World



MILENA BELOIA-CHERES
3A CIVIL

While most of us were sleeping comfortably in our beds before our morning classes on Monday, February 8th, the Kennedy Space Center in Orlando, Florida was buzzing with activity anticipating the launch of its 32nd shuttle mission to the International Space Station (ISS). After an unsuccessful attempt to lift off on Sunday, February 7th, caused by unfavourable weather conditions, *Endeavour* finally cleared its tower at 4:14 AM on Monday morning.

The launch of *Endeavour*, officially known as mission STS-130, has long been awaited since the shuttle carries a unique and exciting expansion up to the ISS. Totalling a grand sum of \$400 million, *Tranquility* and *Cupola* are the two modules that will bring the space station closer to its completion scheduled for 2011. Both modules were funded by the European Space Agency (ESA) and Italian Space Agency and built by the Italian contractor Thales Alenia Space in Turin.

Tranquility, also known as Node 3, is the

larger of the two modules and, as the name indicates, it will act as a node location for future expansions or transportation of vehicles. Equipped with 6 berthing locations in total, *Tranquility* will actually only have 3 active, due to changes in earlier plans. The technology and services transported by the module include one of most advanced life support systems, capable of recycling waste water, generating oxygen, removing contaminants from the air and monitoring the atmosphere composition on the ISS. On top of that, *Tranquility* will supply a toilet, exercise equipment, storage space and will accommodate robotics work. The other module, and the one that has caused much excitement among astronauts and space fans alike, is *Cupola*, the ISS' own window to the world. As its Italian name suggests, the module is shaped in the form of a dome and features six side windows and a top one for a much-needed 360 degree angle view. It will be used to observe maintenance, experiments, dockings of the ISS, as well as to provide that breathtaking general view of our home planet, compared to the limited peeks astronauts get from using only the small portholes present on the space station. Moreover, *Cupola* will allow robotic connections for the installation of a control sta-

tion for Canadarm2.

But the "room with a view" has made news not only because of its unprecedented viewing opportunities, but also because of its naming process. In early 2009, NASA announced that Node 3 will be named through a naming contest where users were offered 4 names (*Earthrise*, *Legacy*, *Serenity*, and *Venture*) to choose from or were able to suggest their own. During his March 3rd edition of *The Colbert Report*, Colbert suggested that users vote for the module to be named after him and, surprisingly or not, his dream came close to reality when "Colbert" won by 40,000 votes ahead of the NASA suggestion of *Serenity*. However, during the April 14 *Colbert Report*, a NASA astronaut announced that NASA decided that the module's name would be *Tranquility*, in honour of the 40th anniversary of Apollo 11's lunar landing on the Sea of Tranquility. To make everyone happy, the astronauts also proposed that the treadmill used on the ISS will be named C.O.L.B.E.R.T (Combined Operational Load Bearing Exterior Resistance Treadmill), an offer which Colbert gladly accepted.

The only question remaining is ...who gets to go for the first run in front of the highly anticipated window to the world?

Iron Archives

Copyright, POETS Renovations, Brian Drain & With Respect To Time



**MICHELLE
CROAL**
3B CHEMICAL

Winter 1985 Issue 3 – March, 1985

Jeff Endenburg submitted a piece summarizing the University of Waterloo's support for proposed amendments to the Criminal Code of Canada dealing with computer crimes. UW had encouraged the Justice and Legal Affairs Committee to extend copyright protection to computer programs, and to strengthen existing legislation regarding fraud and mischief with the use of computers.

"Computer 'hacking', a term generally used to describe the use of computers to obtain access to the files of credit agencies, companies, etc., that are stored on computers, has recently gained substantial attention. There have been incidents reported in the US in which teenagers have obtained access to credit card numbers and just recently, a 17 year old Vancouver youth was charged with netting about \$5000 worth ... using stolen credit card numbers." And this before the Internet!

While the risk of computer misuse was considered low at UW specifically, concern was voiced over copyright issues regarding computer software. "While the US and many European countries have gone ahead and modified their laws, Canada has 'no legislated protection of intellectual property rights of software'." It was estimated that in 1984 Canada had lost about 400 million dollars to software piracy, and it was believed that protection for software would help the development of the software industry. Today we know that piracy is one of the biggest threats to the software industry and that companies have had to develop alternative business models to keep ahead of the consumers. Additionally, while it's frustrating that you can't stream many of your favourite shows, compared to the US, Canada is actually a software and media pirating haven. Legislation and enforcement have still not caught up with standards in other countries, and many people in our generation would say that's a good thing.

Winter 1990 Issue 3 – Mar. 2 1990

Some things never change: David Rashkovan and Gregg Loane outlined the POETS renovations a la 1990. Some of the new features included a new popcorn machine (to replace the old one), the purchase of a 6' by 8' digital projector screen from Video Works in Waterloo, new dart boards and new furniture. Two new bars graced the halls of POETS in January: a main L-shaped bar on the right as you enter POETS and a long stand up bar along the back windows, both made from solid oak and costing in total around \$3000. The new furniture of pub style tables and bar stools increased the seating capacity by about 60%. The authors had this to say about theft and vandalism:

"New dart boards were purchased, then stolen; purchased again, and wrecked. It is a pity that there are people who cannot use certain facilities properly without destroying them. Nobody benefits from these acts. It only causes hassles, and forces the society to install an alarm system (which should be in within the next week or so)."

Since then POETS has seen more renovations, including moving the bar to the back and adding a service window to the patio. New furniture, framed frosh week t-shirts, a hard hat collection and artificial greenery in the balcony upstairs are all recent additions. Hopefully one day soon the netting will be up and the pool table upstairs can be used for more than a study group area.

Also in this issue: an ad for Hewlett-Packard's new HP-28S Advanced Scientific Calculator, for a mere \$269.00



Winter 2001 Issue 3 – Feb. 16, 2001

In this issue, Sung Hon Wu and Ryan Bayne argue in the point-counter point whether the Canadian government was responsible for the "brain drain" at the time; the large numbers of Canadian university graduates moving south to the US for work opportunities. Sung Hon claimed that Bush's \$1.6 trillion in tax cuts will "encourage more people to head for the tax haven to the south". Additionally, with the Canadian dollar being 2/3 of the US, it meant that a Canadian doing the same work as an American essentially got paid one third less. One of the next reasons he claims, is opportunity. "If you want to work for the most famous software company in the world, then you work for Microsoft. If you want to work on the latest hardware, then you work for Cisco, Intel and Nvidia. The US did not become a world leader in technology by chance; it is the result of years of funding theoretical research and then following up to find applications..." He goes on to explain the many examples where the Canadian government did not fund research projects that were later purchased by companies south of the border, who then recruited Canadians as employees.

Ryan argued instead that the Canadian companies, and not the government, are weaker with recruitment than their American counterparts. "It seems that the info sessions with lots of food and drink tend to be held by foreign or multinational companies compared to domestic employers... I obtained the job [for a Canadian company] through a phone interview. In comparison, the other co-op students had the employer visit their school during a job fair and then fly them to the offices for a weekend of interviews..." American companies also offered extra support and perks for relocation to the US, including in some cases, free housing for four months, a shared vehicle or sporting events and company outings.

Excuse me? Companies willing to fly you to Miami for a weekend just for a co-op position? Seems highly unrealistic in today's world of budget cuts and overpaid CEOs. True, the taxes here are killer, but there are many more factors to consider when moving your career internationally.

Winter 2005 Issue 3 – Mar. 2, 2005

Neil Rittenhouse, 2A Mechatronics at the time, wrote that "It don't mean a thing if it ain't got that [Iron] Swing", referring to the accomplishments of Ally Chan (2A Chem) in starting up what is now the successful engineering jazz band, With Respect to Time.

"Over the past few months, she has been busy trying to make her vision come to life. Musicians for each part had to be found and music selected. Practice space was also a concern, with a location initially proving difficult to find. Thanks to the efforts of Mark Spanjers, the band was able to make use of the SLC multipurpose room every Sunday from 4:30 to 6:00pm..."

"Gabriel Chan volunteered to be the conductor and the jazz ensemble was complete. He does a great job of leading the band, ... yelling at the saxophone section for being out of tune, at the trumpet section for being too loud and at the trombone section for not being loud enough. What more can a band ask for?"

When asked what compelled her to form a band, Ally responded, "Can you remember the last time you did something because you loved it? ... To me, that thing is music, and even though I told myself engineering wasn't going to prevent me from playing music, it did. I regret that I went over a year without really playing. Too many people let go of the things they love too easily..."

With Respect to Time usually has charity concerts each term, as well as occasional appearances at events like semi-formal, TalEng and EngPlay so be sure to show your support for this incredibly dedicated and talented group at their next concert!



NE 102 - Nanomaterial Health Risk Milestone



ALISON LEE
1B NANOTECHNOLOGY

Nano-silver. Nano-tubes. Nano-particle HD makeup. All kinds of nanomaterials exist in mainstream consumer products and in emerging technologies. They are slowly making their way onto labels, but because nanotechnology is so new, the effects of nanomaterials on humans and the environment are largely unknown. This should cause concern among consumers and even more among those who work directly in the nanomaterials industry.

That is the reason for a new milestone in nanotechnology engineering called NE 102: Nanotechnology Health Risks. This optional milestone, occurring during class seminar time, aims to help students understand toxicological, exposure assessment and risk assessment issues surrounding nanomaterial products. The syllabus emphasizes the importance of critically analyzing studies and how to differentiate hard facts from speculation and generalizations. It also acknowledges that the nanotechnology field is constantly evolving and equips students to enforce their rights in the workplace, even though employers may not always have the most current safety stand-

ards.

The reason why nanomaterials require a different Materials Safety Data Sheet (MSDS) than their macromaterial counterparts is that their scale affects how the body responds to them. When you have particles that are much smaller than blood cells and can permeate selective biological barriers, their long-term health effects are extremely difficult to track. They can stay embedded in tissue forever or translocate all over the body. They could cause damaging biochemical reactions that far outweigh their practical benefits or they could be completely benign and save lives in medicine. Of course there are ongoing studies, but they are funded by organizations with varying degrees of bias and diligence, so we cannot really compare them and draw conclusions.

The reality is that there is no international regulatory body or standards dictating how to handle nanomaterials because they are so new. Research returns inconsistent results and the media fails to report on experimental methods. For example, many headlines will say that carbon nanotubes (CNTs) cause cancer in the same way that asbestos does. This is misleading because, although CNTs and asbestos are similar in shape and biopersistence, studies suggest that CNTs cause oncogenes via a different mechanism than asbestos and

thus they cannot be assumed to have the same toxicology.

Nanotoxicology is one the topics covered by the Nanomaterials Health Risks Milestone. Others include Nanomaterials Exposure, Consumer Products and Ecotoxicology, and Risks and Benefits. There are 32 lectures by Dr. Laura Deakin which last up until 3B, with a few tests and assignments. It is a pass or fail credit, and a prerequisite for the NE 201 lectures on nanotoxicology and decoding MSDS sheets. It was developed this summer with input from Dr. McCourt and Dr. Ioannidis of the nanotechnology department, and will constantly adapt as a necessary, possibly becoming a mandatory milestone in the future.

"I'm excited about this new milestone as it presents UW nanotechnology engineering graduates with a background in their field that is unmatched by other institutions," says Dr. Deakin. Although there is no course credit received for the milestone, it will appear on transcripts and will likely be something employers are interested in. Above all, it's in students' best interest to differentiate between exaggerations, understatements and hard facts, and to be able to communicate this with co-workers in the nanomaterials industry, occupational

health and safety hygienists and physicians.

Health and safety standards are there for a reason, but we cannot blindly trust them to be enough. It's reassuring to know that Waterloo is teaching self-protection in the workplace so that we can prevent illness before it's too late.

MORE THAN JUST COFFEE & DONUTS

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

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

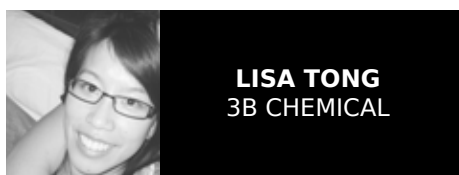


HOURS OF OPERATION
MONDAY-THURSDAY 7:30AM - 7:00 PM
FRIDAY 7:30 AM - 5:00 PM

ENGINEERING
SOCIETY



Being Safe and Knowing Your Limits



LISA TONG
3B CHEMICAL

In my last article regarding body types, I forgot to mention that although each body type has its own advantages/disadvantages, it should not be an excuse to avoid getting fit! Being fit and healthy does not mean that you can bench press 300lbs or run for kilometres without stopping; it means being good to your body.

Now to bring something to your attention: Because all of us have different bodies, what may seem to be easy for some is not so easy for others. This especially applies to intensities of your workout. The most important thing you have to remember is to be safe and good to your body. I have spoken to trainers and staff members at gyms and they have told me about the injuries that have occurred. The one that stood out most in my mind was that someone lifted weights that were too heavy and eventually muscle fibres tore off completely and balled up underneath the skin. Not to scare anyone here, but these things can happen if you are not aware of your own limits and you could end up undoing all your hard work.

Stretching: Stretching is a great way to prevent muscle soreness and injuries. However, it has been debated for long whether stretching before or after a workout is better for you. It is really up to you, try both and see which one works better for you.

Weights/machines: This one is slightly tricky, it comes down to whether or not you would fail with your last repetition of each set. Ideally you want your muscles to tear slightly and repair to create stronger muscles (which shapes and tones your muscle). For men, you should be failing at around 9 repetitions; women, at 15 repetitions at a lighter weight.

Proper Stances: Proper stances allow you to fully target specific areas for working out and it is important to maintain a proper stance while performing your exercises (it also helps with your posture!). Not performing workouts properly could also lead to injuries. An example was the crunches from my last article, where neck injuries could happen.

If it hurts, STOP: Your body has a really great way of informing you of potential injuries. If your body starts to ache somewhere, STOP. You'll thank yourself later.

I hope these tips help you to have a safe and fun workout!

Tips For Finding Off-Campus Housing



FARZI YUSUFALI
1B NANOTECHNOLOGY

It's that time of year again! The year has sped by and now midterms have arrived, heralding the beginning of spring. Many students, frosh especially, are thinking about (or worrying about) getting a place to live. While the task is daunting, with a few tips and a game plan, finding your first house outside of residence should be a smooth-sail.

1. *Find a couple of friends whom you trust, can live with, and have the same expectations out of university education.*

* Most frosh have already completed this step but are missing some crucial points to cover with potential roommates. For example, make sure that your roommates are not going to back out of your housing plans as this can be potentially disastrous especially when you have signed a lease.

* If one of your roommates doesn't mind storing their clothes on their floor or keeping food in their shoes, then you should probably rethink that person as a roommate, particularly if you are a clean freak.

* Finally, make sure that you speak about entertainment, such as parties and TV, especially if you are living with someone outside the Engineering Faculty (*cough*arts students*cough*)

2. *Search through a number of resources (not only the listings provided by UW), bookmark prospective places to live, and TALK TO YOUR ROOMMATES ABOUT IT.*

* By searching through *Kijiji*, *The Record* (which is updated daily) and other public house listings, you are more likely to get a cheaper rate for the same living arrangement found through the UW listings. This is especially true for housing that is further away and is viable for students who have cars.

* Set a budget for rent and other related costs with all your roommates. What may be a reasonable price for you may not be for your roommate. Check for hidden costs like commuting, furnishing the living space if it is listed as unfurnished, television and internet, etc. Be sure to keep an allotted sum for any unexpected costs you may encounter throughout the year.

3. *Visit bookmarked places as a group*

* By visiting each property as a group, you can ensure that everyone will be comfortable with the living space. Things to keep in mind:

+ Location: Is it a safe neighborhood? How far is it from campus? How far is the nearest grocery store, bank etc.? Is it on a bus route?

+ Facilities: Are utilities included? Are you responsible for mowing the lawn/shoveling snow etc.? Is Internet/TV included? Is laundry included? How far is the nearest laundromat? Is parking included?

+ Living Space: Privacy? How many bathrooms? Full kitchen? Laundry? Shared living space? Space for storage? Separate entrance?

* Look for convenience when it comes to looking at housing since a lot of time will be spent getting groceries, commuting, etc. Also, ask previous tenants about the average monthly cost of living and factor that in your decision.

4. **READ THE LEASE!!!**

* Far too many students get stuck with nightmare landlords, hidden costs, and unrealistic conditions when they sign a lease without reading it. One of the biggest causes of stress is taking on an extra rent when one roommate has dropped out. Make sure to read the lease thoroughly, highlight any causes for concern, and talk to your roommates about it. It is also advisable to get a professional (off-campus counselors at UW, parents, etc.) to look through the lease in order to bring up any important points in the lease. For the conditions outlined, think about the feasibility of these specifications being met. Most importantly, compare the given lease with other leases to ensure that you are getting a fair agreement between you and your landlord.

If you follow these simple but crucial ideas, then finding a good place to live next year should be easy. Remember that you should not be pressured into signing any lease and that you have options outside this arrangement. It is also a good idea to keep a list of basic things that are nonnegotiable when it comes to your living space. When looking for a place, remember to take your time and keep a clear game plan in mind. Finally, if you feel uncomfortable with the living situation, especially with the landlord, walk away. If all goes well, then living off campus should prove to be more enjoyable than residence (think of all the epic parties!)

Mother Language Day

TAHBIT CHOWDHURY
BANGLADESH STUDENT ASSOCIATION

Freedom of thought, speech, and expression – what does it really mean?

There are many ways to approach this but what does it mean to have freedom? What are the cultural foundations that incubate our thoughts and carve our actions? Although these are open ended questions, one of the most reliable frames of reference would be language.

Modern media and telecommunications tend to make us feel as if the world is getting smaller. But how is this so? One key aspect we need to pay close attention to is how language plays a powerful role in shaping the global village. From an anthropological perspective, there are consequences to a culturally shrinking world community where the number of people increase but the quality of diversity decreases.

This issue comes forward when we see languages disappear year by year. Linguists, educators, and government planners have their work cut-out for them – of the six thousand languages identified on the planet, hundreds if not thousands are expected to die out within this century and the next. Many readers may not fully appreciate the scope and depth of what this implies.

Earlier this month, the last remaining speaker of Bo passed away of old age in the

isolated Indian territory of the Andaman Islands. The Bo language, their speakers, and their associated cultures stem from Africa. Academics are pegging Andamanese languages as close to being 70 000 years old. That's definitely old. That definitely pre-dates most cultural compasses that we have grown up with, be it Roman, Greek, Indus, Persian, Nubian, or other.

Take the case of the Code Talkers – young men from pre-colonial nations of North America being enlisted for their linguistic backgrounds to easily encrypt and decrypt wartime communication for the Allies. The most famous Code Talkers happen to be from the Navajo Nation of today's south-western United States. The contributions made by Navajo code talkers and the speakers of other native languages were priceless and helped the Americans win their historic victory at Iwo Jima.

February 21 was declared the International Mother Language Day in 1999 by UNESCO after a motion put forth by the People's Republic of Bangladesh was accepted by the world body. This date carries special significance in Bangladesh because it was on this day in 1952 that the then-Pakistan regime ordered peaceful student protesters to be fired upon as they marched for equal language rights in East Pakistan. Several young people were killed by gunfire, close to a hundred suffered gunshot


wounds. At the time, Pakistan was a unilingual country based on Urdu as the national language even though Bangla was the single most spoken language within the federation.

From bi-lingual New Brunswick, Andaman Islands and the Canadian Arctic, to the desert north of modern Mexico, to the isolated depths of the Congo and the

plateau of the Himalayas we can see that languages make us rich in ways we cannot quantify but in ways we cannot afford to lose either.

Please take a moment to remember, ponder, and think of who we are as human beings and consider how we have come to the point where we are at. Most importantly, gaze into the future where we want to be.

Upcoming CECS Events Calendar

Wednesday February 24	Thursday February 25	Friday February 26	Monday March 1	Tuesday March 2	Check out up-to-the-day event postings on the CECS website at cecs.uwaterloo.ca
Multiple-Mini Interview Practice Session 4:30-7:00 TC 1214	Success on the Job 3:30-5:00 TC 1208		Work Search Strategies for International Students 4:30-6:00 TC 1208	Writing CVs and Cover Letters 12:00-1:30 TC 2218 Interview Skills: Preparing for Questions 3:30-5:00 TC 1208	
Wednesday March 3	Thursday March 4	Friday March 5	Monday March 8	Tuesday March 9	
Interview Skills: Selling Your Skills? 3:30-5:30 TC 1208	Job Postings (Main) Open	Job Postings (Main) Close	Job Postings (Main) Open	All About GMAT 4:30-5:30 TC 1208 Thinking About an MBA 5:30-7:00 TC 1208	

FYIC: Fun Yearly Engineer EngSoc Executive Elections Conglomeration!? Now Nominations Open

**ELIZABETH CELENTANO
& IOANA CRAICIU**
1B CHEMICAL & 1B
NANOTECHNOLOGY

Who are we, you ask? We are your A-Soc First Year Integration Conference attendees. This basically means we spent a weekend at Lakehead University in Thunder Bay, hanging out with our fellow first year engineering students from across Ontario. Why were we chosen, you ask? We like to think that we are outgoing, enthusiastic, brilliant, drop-dead-gorgeous, and all around amazing engineering students, and therefore we represent all UW engineering students. We were told we were chosen for other reasons but we'll stick with our initial hypothesis. In any event, if you are interested after reading this article, be sure to apply to some of the upcoming conferences! Info is always being sent over the mailing list.

In our conference-related adventures, we were joined by two B-Soc-ers, Myles Tan and Vlad Katkov, and the ever patient and protective/hilarious VPXs, Mike McCauley and Kevin Ling. Our weekend included several presentations, given by distinguished engineers and organizations such as PEO (Professional Engineers Ontario) and ESSCO (Engineering Student Societies' Council of Ontario), which were aimed at introducing us to the many facets of being future engineers. We also participated in a

robotics competition, got to see some awesome Lakehead senior design projects, and even learned about the design of the Olympic torch. The conference, which showed us the post-graduation side of engineering, reminded us of the reason we decided to undertake the noble quest of becoming engineers. We got excited about our chance to build bridges, design cars, create virtual realities or innovate energy solutions. We feel it was a very worthwhile way to spend our weekend.

In addition to all this serious business, we participated in a variety of jovial recreational activities. These included dog-sledding, ice-skating, swag-trading, bowling-ball-at-pins-launching, and plenty of pop-and-chip-partying.

So, why are we writing this article, you ask? Well reader, it may be because while telling our Waterloo stories to the other engineering students of Ontario, we became slightly misty eyed, and upon returning, we thought we'd tell you how much we love our engineering program. It may be because we loved our engineering conference adventure and we strongly encourage you to embark on your very own. It may be because we wanted to share some inter-University brotherly spirit. It may also be because Mike McCauley asked us to. We'll let you decide.

Are we done yet, you ask? Yes. Yes, we are.

PAUL FUGERE
CHIEF RETURNING OFFICER

Elections are coming!! Elections are coming!! Do you love it when the halls are filled with people's faces on colourful posters? Have you ever wanted your face on one of those posters? Do you love being a student leader? Have you always wanted to help run a society which has over 3000 members? All of your dreams and more can come true by running in the EngSoc elections.

Nominations are open RIGHT NOW and will close on Wednesday March 3rd. Stop by the Orifice to pick up a nomination form, fill it out and then attend a mandatory meeting on Wednesday at 4:30. That is all you need to do to run. SIMPLE!

All Exec members are very approachable and will gladly discuss what is involved in their position (email addresses are provided at the end of this article). Myself and Mike Seliske, my assistant, are also available to talk about election policies and how things will run, so don't hesitate to contact me (cro@engmail.uwaterloo.ca).

Are you in Nano, ECE or another 8s or 4s program and are switching streams in the middle of your term? In light of some new policy and constitution changes, you too can run for EngSoc Exec, just grab a running mate and run as a team. More details about these changes can be found out by contacting me and we can discuss the specific details.

Once nominations are closed on Wednesday March 3rd, official campaigning begins on Thursday March 4th and will continue until Friday March 12th. Voting will then be open during the weekend with results being announced at TalEng on Tuesday March 16th. This might seem like a lot of dates but keep checking the mailing list for CRO updates as well as the next issue of the *Iron Warrior* for an introduction to all of the candidates. The trophy case will be transformed into election central with bios, updates and photos. Information can also be found on the EngSoc website in the elections section.

Elections are a very exciting time and I hope the campaign season will be a great one. If running for an exec position has ever crossed your mind, find out more and do it! It will be one of the greatest experiences of your life.

The email addresses of exec are as follows:

- Acting President:** Mike McCauley
asoc_prez@engmail.uwaterloo.ca
 - VP-Finance:** Eric Cousineau
asoc_vpfin@engmail.uwaterloo.ca
 - VP-External:** Mike McCauley
asoc_vpext@engmail.uwaterloo.ca
 - VP-Education:** David Liu
asoc_vpedu@engmail.uwaterloo.ca
 - VP-Internal:** Tim Bandura
asoc_vpint@engmail.uwaterloo.ca
- Paul Fugere (CRO) and Michael Seliske (CRO Assistant)

WIE Learns To Fight Back Genius Bowl Paint Splash!



**CAITLYN
CARTWRIGHT**
1B CIVIL

Women in Engineering in collaboration with the UW Karate Club hosted a karate and basic self-defence workshop on Monday February 1st. Despite conflicting with the Genius Bowl, attendance was good.

The first thing our instructors Nancy and Will told us was to be an "MVP" - not the "most valued player" but instead, "MVP" is a reminder to be "Mental, Vocal and Physical". The best way to defend yourself after all, is to avoid placing yourself into a position where you are likely to be attacked. So this means walking in groups, calling ahead to let people know when you are going to arrive home and taking other precautions.

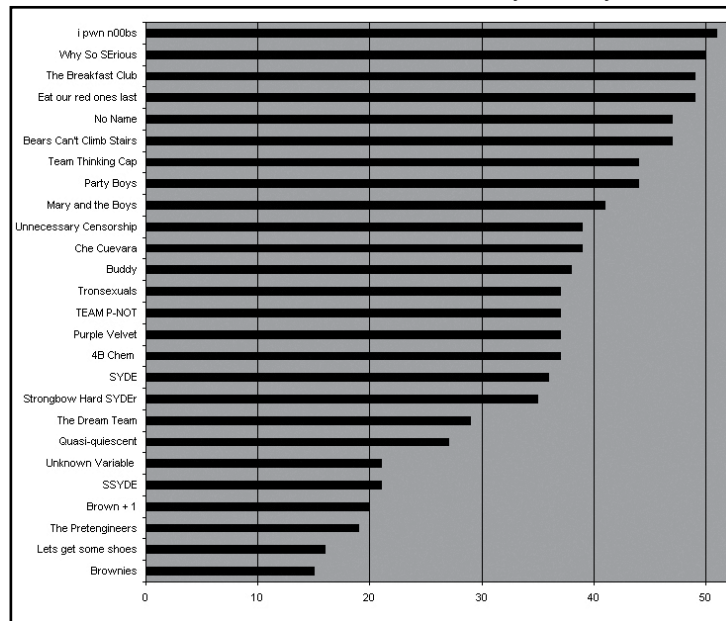
Being vocal means letting the person who is harassing or bothering you know that it is not alright. This also means alerting other people around you that you are being harassed or attacked.

Finally, being physical means not being afraid to fight back if appropriate. The rest of the workshop taught us how to be physical. Our instructor demonstrated how to do some basic moves. We learned that the best way to punch when unfamiliar with making a proper fist is to use the palm of the hand. We also learned how to properly groin kick (The tip we got was to point our toes and kick with the top flat part of the

foot so no toes get broken accidentally!). Then we got our turn to practice punching, elbowing, kneeing and kicking our instructors. Don't worry they used pads to protect themselves!

The workshop was not entirely serious. We tried other fun things like breaking boards and throwing an assailant who comes up from behind.

I would like to congratulate Women in Engineering for organizing such a successful and informative event. The self-defence karate night was a great opportunity to loosen up and get physical.



Score Chart from Genius Bowl

KATE HEYMANS
1B CHEMICAL

On February 7th the termly engineering trivia contest took place gathering the genius (and not so genius) engineering students in an effort to find the most genius of them all. With the usual jokes and costumes abounding, the questions were spread out covering topics as varied as the location of the Orifice (CPH 1327) to the names of the countries in Europe that start with A (Armenia, Albania, Austria). Hidden within the title page of each section was an *ironic* theme noticed only by the very attentive. With the fun came the

usual ridiculous attempts to scrape in more points by offering tokens of love to the emcee. Although some people also employed unfair methods (involving iPhones and BlackBerries) to get the answers, most people were remarkably sportsmanlike. Candy was awarded to the teams with the best costumes, team spirit and funniest answers and the winning

MIKE SELISKE
2A COMPUTER

A quick note to introduce the Federation of Students "Colour me Educated" campaign which is a Charity Faculty Challenge. The premise of the challenge is for each faculty to raise as much money as possible and on April 2nd 2010, top administrators of the University as well as the FEDS Executive will have paint dumped on them in different faculty colours. The poster says \$1000 will get a 1/2 gallon and \$2501 will get you a full gallon of paint in your faculty colour (which in our case is purple) dumped on University Administration (The engineer in me says to just buy two half gallons). Details are still not released but I think that Engineering should show how awesome we are and how much better purple looks on someone than pink. All proceeds will be going to Pathways To Education, an organization which strives to reduce high school drop out rates and make post secondary education attainable for underprivileged children using academic tutoring, social networks, financial help as well as advocacy. Please see www.feds.ca/colour-meeducated or www.pathwaystoeducation.ca for more information.

teams left the night a little richer. After an exhausting evening of intelligence thanks to the organisers, point-counters, question-askers, and to all those who took part in organising or attending for making Genius Bowl so GENIUS.

HOETS				
MOVIE SCHEDULE				
SHOWINGS BEGIN AT NOON				
Monday March 1 Iron Man Paycheck Taken	Tuesday March 2 High School Musical High School Musical 2 High School Musical 3	Wednesday March 3 Finding Nemo Robots Happy Feet	Thursday March 4 Thursday Theme Day	Friday March 5 The Devil Wears Prada 27 Dresses He's Just Not That Into You

ENGINEERING SOCIETY EXECUTIVE REPORTS

VP External Report



MIKE MCCAULEY
VP EXTERNAL

Hello again! I have a couple of updates from the External world for you. Firstly, FYIC (First Year Integration Conference) was in Thunder Bay February 5-7. It was a great weekend and I was lucky enough to take a fantastic delegation along with me. We had a great time and were able to take part in some intriguing talks and presentations. Check out the full article by Ioana and Liz for more details!

The Ontario Engineering Competition went very well and I want to send a huge thank you to all those involved in the organization of the event – you made Waterloo proud! Congratulations to all the winning teams who will be representing Waterloo at the Canadian Engineering Competition in Toronto, March 18-21, 2010.

The Engineering Hockey tournament that Guelph is hosting March 6-7 is confirmed and we are one of the 6 teams from across Ontario competing. Each of the schools competing will be sending a team from their Engineering Society so it will be a fun weekend of engineers and hockey! I sent out an email with more details so please

respond if you are interested in playing or have any questions! Currently I'm hoping to make it free for everyone who plays but depending on what we do for transportation, there may be a small cost per person.

Engineering is hosting the annual March Break Open House on March 16th for high school students and EngSoc has been asked to participate this year. We will be having a booth setup on the third floor of RCH from 9 am-3 pm that day and I'm looking for volunteers to help out so please let me know if you have one or two hours free that day. You will just need to talk to high school students about what EngSoc does and how engineers have fun at UW! There will be refreshments for volunteers throughout the day and you will get a free t-shirt out of it as well (tempting, I know!).

Lastly, the National Engineering Month directors have been working hard on Waterloo's contribution to the Ontario wide Rube Goldberg machine. Engineering schools from across the province will be coordinating on February 27, 2010 with the finale ending at the Ontario Science Centre. The Grand Finale will be available to watch on Podcast as well!

And that's all she wrote! Feel free to ask me about anything I've mentioned if you want more info or are interested!!

VP Finance Report



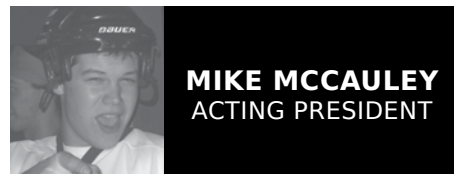
ERIC COUSINEAU
VP-FINANCE

I hope you all had a great reading week. The last two weeks have been very slow due to it being that time of the term where everyone buckles down for midterms. Donations will be decided on Wednesday Feb. 24th at the EngSoc meeting. Keep a lookout for the final result on the mailing list.

MOT will be held this Friday Feb 26th, at SCH. The event is of course all ages, and the doors open at 9 pm as always. As of now, the theme for the event will be Disney! That's right, come dressed as your favourite Disney character or non-character.

POETS Warrior Lager has been on sale in POETS for a few weeks now, and the general impression that I have gotten so far is very positive! Remember the special price of \$4.00 will only last for the first 10 cases of 24 bottles, and then it will sell for \$4.25. This brew is a newly reinstated

Acting Presidential Report



MIKE MCCAULEY
ACTING PRESIDENT

Midterms are just about done!! Hopefully everyone is relieved to be done half the term already. There's a lot going on over the next few weeks so keep your eyes peeled to the events board outside the EngSoc office!

Firstly, I'd like to tell you a few highlights from our Executive meeting with the Dean a couple of weeks back. For those of you who weren't at Meeting #3, the Dean announced that the new branding colour for Engineering has been changed from blue to purple! This is excellent news and I know a lot of you are very pleased with this change. We also talked about the UAE campus and as most of you know, first year enrollment was lower than expected, so some work will be going into increasing these numbers going forward in order to make the campus sustainable. The Dean has asked for our input on how an EngSoc can be created at their campus as well so we are working with him to develop a plan. Let us know if you have any ideas on the best way to do this! Finally, we talked about construction on campus. E5 is on track to be open this April but it won't be fully ready for classes until September. The Dean will be hiring someone to manage the equipment required for the building so that everything will be outfitted correctly and more importantly, so that the

student teams have everything that they need. E6 is still on track for completion in March 2011. E7 is in the plans but will not be started in the near future as funding needs to be raised.

We have decided to have MOT at SCH this term. We were originally going to have it at Bomber but because some issues came up with the security at Fed Hall (same security as Bomber) at IRS, we have decided to move it to SCH. Come out and join us this Friday!!

Your next Executive and WEEF Director will be elected this term who will be serving for the Fall 2010 and Spring 2011 terms. Nominations are open from February 24 – March 3 so be sure to stop by the EngSoc office for the nomination forms. Campaigning will be from March 4-11 and voting will end on March 16 with the results being presented at TalEng that day. Stay tuned for more info from Paul Fugere, our CRO this term.

Last meeting we heard the P&P Award presentations. Kim Broten, Andrea Murphy, Grant Campbell, Dave Halford, Samantha Pinto, and JD O'Leary have all been nominated for A-Soc. Award winners will be presented at Grad Ball on March 27.

Finally, the annual March Break Open House is coming up on Tuesday March 16 from 9 am - 3 pm. It will be held on the third floor of RCH to showcase Waterloo Engineering for prospective high school students. Also, I will be attending the Examinations and Promotions Committee meetings on March 8 & 9.

tradition for UW Eng, since this same beer was sold back in the 90s in POETS. It is a unique beer, brewed just for us by our friends at Gold Crown, so give it a try the next time POETS is licensed! I also expect it to be on sale at MOT this Friday!

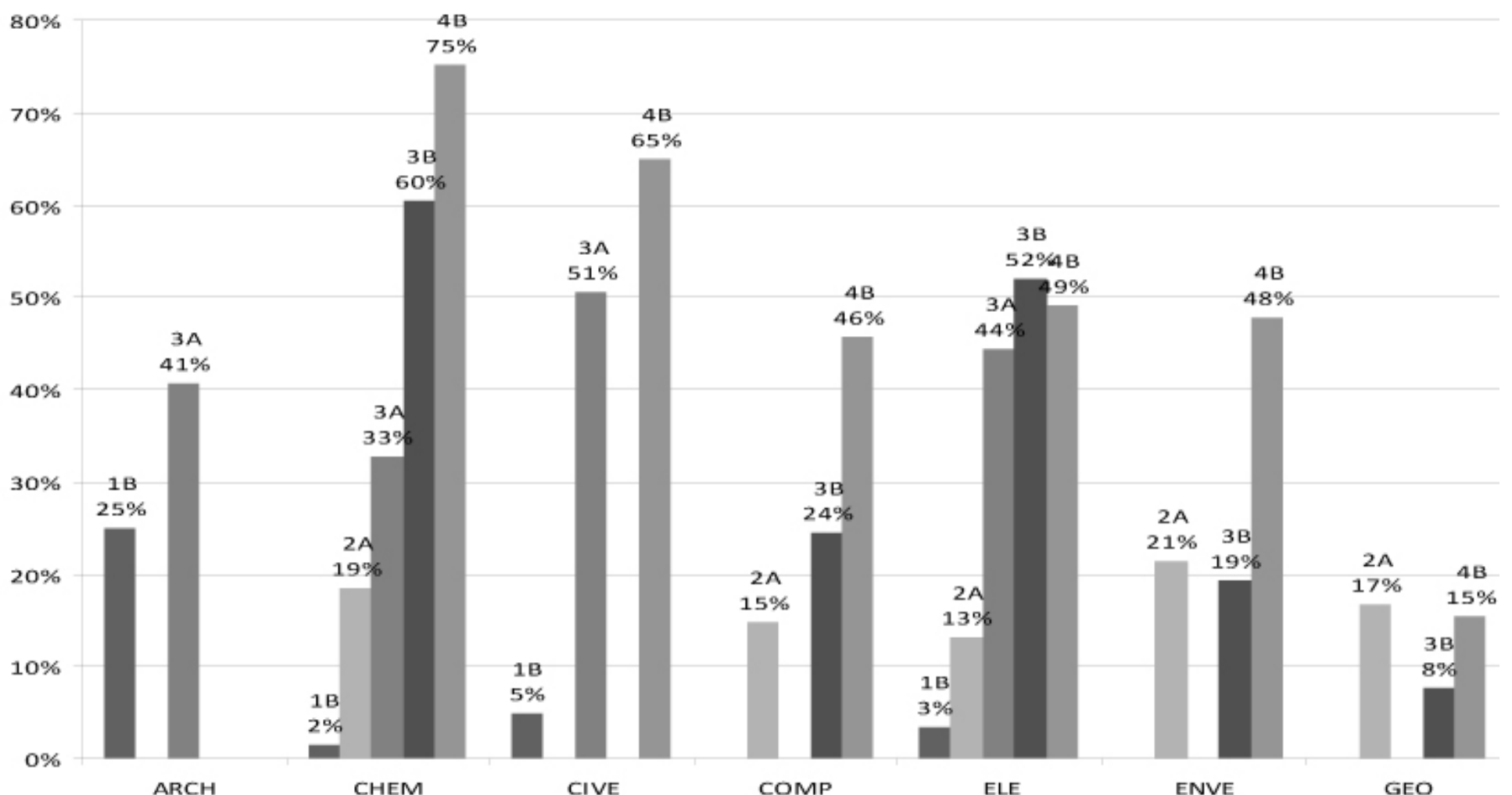
This term's budget was published in my last IW article, through the mailing list, and it's also available on our website. I am

working to get new and exciting items in Novelties this term, with a focus on higher quality and desirable items. If you have any ideas for practical items let me know!

Well that's it for this time. If you're in ECE, I wish you a good Hell Week. Good luck on midterms to everyone else as well!

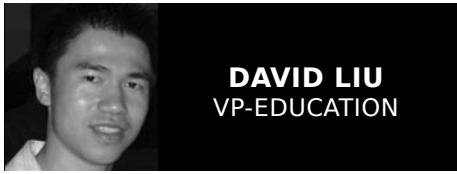
Eric

Winter 2010



ENGINEERING SOCIETY EXECUTIVE REPORTS

VP Education Report



DAVID LIU
VP-EDUCATION

Hey A-soc,
Hope the reading week went well and everyone is ready to take on the 2nd half of the term. We have a lot of things happening so take your time to look around.

Be sure to look at the PDEng Renewal updates written by Sasha in this issue. We have published the first set of changes that we are going to implement, so be sure to check it out at <http://www.engineering.uwaterloo.ca/pdengrenewal>. You can leave your input on the website or you can talk to Sasha or myself by March 1st.

On another note, we are starting a new initiative with Waterloo SOS - Student Offering Support <http://www.waterloosos.com/> Waterloo SOS is a UW student body that runs extra help sessions for midterms and final exams in a variety of math, science and accounting courses. SOS charges

\$15-\$25 per session and all the proceeds go to sustainable educational projects in developing nations. Now, we are looking forward to expand SOS to engineering and I believe this is a win-win situation for both parties. To do so, we need help. If you want to be a tutor, coordinator or organizer of this project, let me know!

Another education initiative that I have started is Light It Up - <http://www.light-it-up.org/>. Currently, it is an online web application for 1st year students taking the GENE/ME 123 electrical circuit course. Student can build their own circuit and the app will solve and animate the circuit for interactive learning. However, the current technology can take education to a new level in other courses too. Find out more at <http://www.light-it-up.org/>

In the upcoming weeks, I will be holding academic rep meetings, administering course critiques and administering debt load surveys with my directors. As well, there will be EngSoc exec elections along with many other EngSoc events. So be involved.

VP Internal Report



TIM BANDURA
VP-INTERNAL

And we're back from the Reading Week! Wahoo! Who doesn't love a break from the hustle and bustle of life?

As I had anticipated, Genius Bowl was incredible. There was lots of spirit and a great showing from many classes. A huge thanks goes out to Ian Osborn, Brendan O'Shea, Sasha Avrelina and Kristine Campbell for the hard work they put in as Genius Bowl Directors! It was awesome!

Another big thanks to everyone who came out to Molly Bloom's to watch the Team Canada vs. Team USA hockey! It

was a great time hanging out exclusively at Molly's with other students (ARCHITECTURE was there! IT WAS FUN!). I'm looking forward to possibly more exclusive events at Molly Bloom's, and I will keep you all posted. Ryan Egli and Ash Dave organized most of this event and I appreciate the opportunity they've opened up for us!

Upcoming events include Council Meeting #4 (come out for free dinner and updates on what's happening around Engsoc), MOT (Middle-of-Term Party!), a possible Archineering event (where we go party with Architecture!) and our curling bonspiel taking place on March 6th. All event details are posted on our website!

Have a great March!

WEEF Report



JAY SHAH
WEEF DIRECTOR

WEEF Proposals have all come in. There has been a whopping \$266 693 of funding requested, and we have \$85 000 to allocate, clearly there will be some tough decisions to make. It came as a surprise that there were no funding requests from the ECE or MME departments - traditionally these departments (given their size) have several proposals. CEE, SYDE, ARCH, GEO and CHEM departments came in with requests for a variety of equipment adding up to over \$178 000. The remaining requests came from student teams as well as the engineering student machine shop.

Presentations that accompany the proposals will occur on Feb 23rd and Feb 25th in E3-1303 from 5:30 pm to 8:00 pm. Dinner will be provided to the WEEF Class Rep(s) that attend (1 or 2 per class). To ensure your class/department gets a say in

where the \$85 000 gets allocated, please be sure that a representative from your class attends! Visit the list of class reps at www.weef.uwaterloo.ca/council.html to see if your class has a rep.

After presentations are completed, the funding council (comprised of all the WEEF Class Reps) will convene on March 2nd to determine how this term's WEEF Monies will be allocated.

The statistics for WEEF Returns are now available (see accompanying chart). We had an overall 30% return rate, which has been fairly typical over the past terms. One thing to note is the return rates within ARCH. Last year we saw a 0% and 19% with 1B and 3A respectively, this year we're seeing 25% and 41% - clearly a significant increase. We need to do a better job in showcasing (stickers etc.) the various purchases made for ARCH. (Perhaps this increase is due in-part to the new online return request system, that did not exist a year ago).

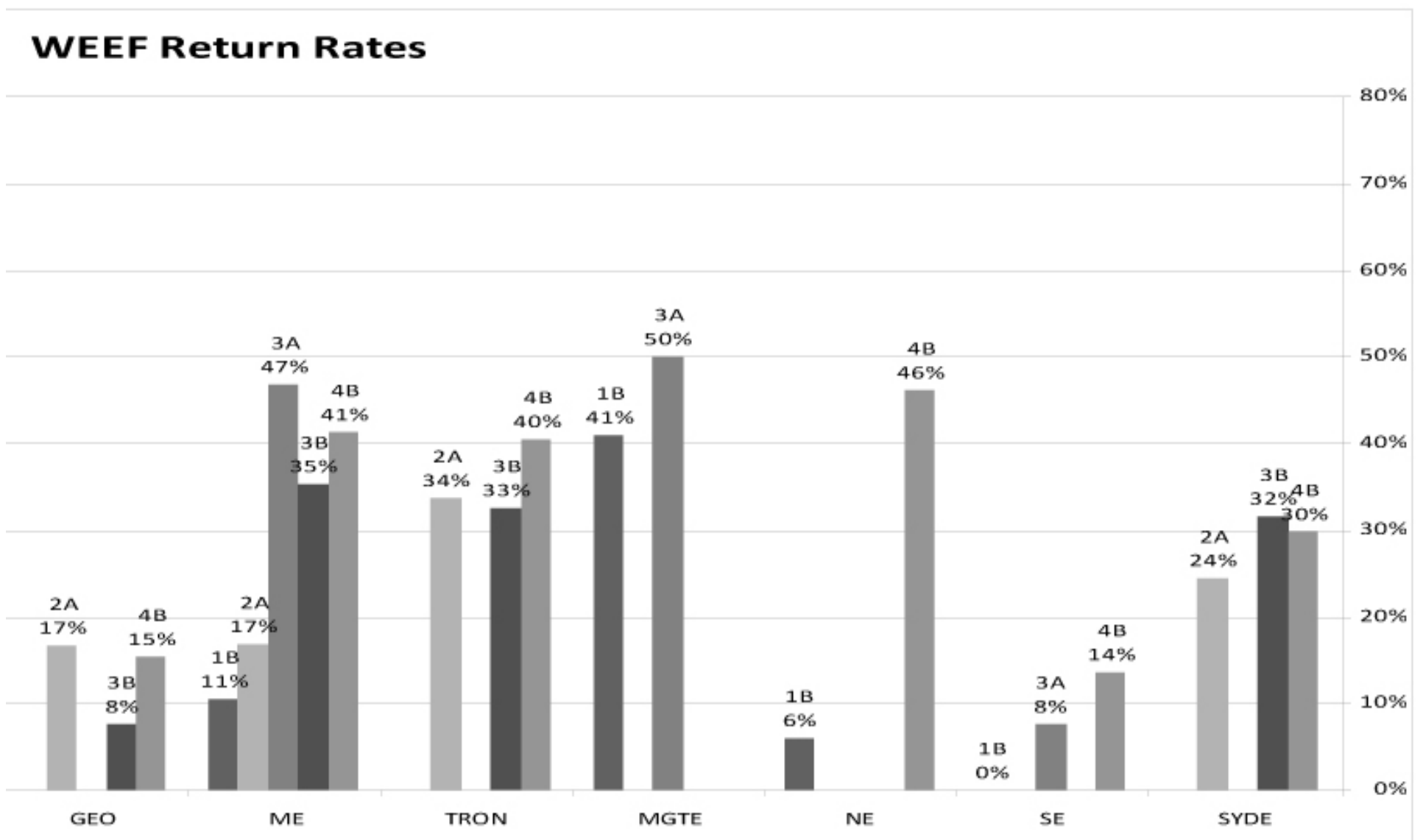
Questions, comments or suggestions are always welcome - email me at weef@engmail.uwaterloo.ca

Released from the Disney Vault...

Middle Of Term

Friday February 26 @ 9-11pm
South Campus Castle

WEEF Return Rates



POINT VS. COUNTERPOINT

Should Professors Be Given Access To Exam Bank?

POINT

JON RADICE
3B CHEMICAL

Engineers are supposed to be tough cookies. Being able to create buildings that reach the sky, tap into resources miles beneath the soil, and able to harness all forms of energy for any task they need, engineers have to be quick thinking, calculating, and very thorough in their designs, and this should be well prepared for at the undergraduate level. The exam bank is a crutch that many people use; many professors recycle the same style of questions from previous exams, and getting the upper hand in these situations are, for some, the difference between getting that Iron Ring, or ending up switching to Laurier for Sociology.

Do we really want that, people with only the knowledge of how to answer a certain type of question that was luckily on the midterm three summers ago? For people involved in creating many potentially dangerous situations, I would like the comfort to know that these people are much better at identifying problems and forging ideas about the situation as it is given, not because luckily this has happened to them before. If professors have access to the exam bank, they can see what questions are available to students, and then build exams off of that, rather than just cut and paste old solutions. Of course this would mean that students would have to put in some critical thinking into their exams, something that I've noticed has been suspiciously lacking.

Right now, as it is, it is not hard to

get answers for every assignment question in any course. Know the right people, and after the first week of class, you can easily have solution manuals, past exams and midterms for every course. Like practice cadavers for pre-med, these can be used as great learning aids - you learn the different effects of the problem and help build a better problem solving mindset. But this can only be achieved if students are not rewarded for this data-mining by getting the gift of the exact same question on exams.

Professors should be granted access to the school's Engineering Society Exam Bank in order to prevent the chance of people slipping through courses or terms as a result of being at the right place at the right time. In addition, they could also better help students with solving these problems. Right now it's an awkward situation if you have to ask a professor about a problem on a previous exam. For one, they might not have written that particular question, as the exam could have been given by another professor. As a result they could not be viable in answering any of those questions. Secondly, if it's one of the professor's bread-and-butter questions, he may be hesitant to help, knowing it'll be on the exam.

Exams should be the true test of knowledge, what the student has learned from their four months of hard work and book learning. There should be as little luck or chance involved in these evaluations. Allowing the professors access to the exam bank allows for

the exam to be a fair representation of what the students should know and it should produce better engineers as a result. No one would want a doctor who can only diagnose if the symptoms are exactly as shown, and no one would want an engineer who can't use critical thinking to solve problems.

WU XIAOYU
2A ELECTRICAL

Reference to older questions in a syllabus, if in an ideal situation, is undoubtedly a mutually beneficial course of action for both the students and the instructors in a high-level academic course in a school that wishes to brand itself as a value-adding science and engineering institution. After all, that's what the new Waterloo logo and YouTube channel are supposed to contribute to, right?

With regards to the scope of our discussion, let's not have any delusions here; a large proportion of the course instructors' time and efforts is not just on the students, but in research work. That is what makes the university a vibrant academic community that's not just about the students' grades or the architectural awesomeness of the campus buildings. With that in mind, the formation of tests and the considerations for producing an acceptable level of test results and hence the practical concerns that are associated with it (such as instructor access to exam banks) should not be of significant concern to the instructors themselves. It would be worrisome if my Calculus professor has to refer to past year exams to formulate my next midterms, because that makes me wonder about the validity of his academic credentials. With the scope defined, let's continue on to explore the validity of propagation for the status quo.

A point to note is that the end decision will truly affect those courses where there is a considerable volume of old exams in storage, such as an introductory calculus or economics course. This is because these courses cover material which is not likely to change in time, so the utility of pre-existing exam material will have a genuine impact on the participating parties. With respect to new and upcoming courses or in high-level technical electives, the utility of existing exams can be considered to be marginal due to either the constant change in material, or due to the need for complete understanding of the ma-

terial anyway so either parties focusing on analysing old exams won't really get anywhere. Hence to apply a resolution with a focused effect on a wide range of courses each with their own course attribute may inadvertently catalyze the evolution of new issues that will need further treatment. That is not sound economics.

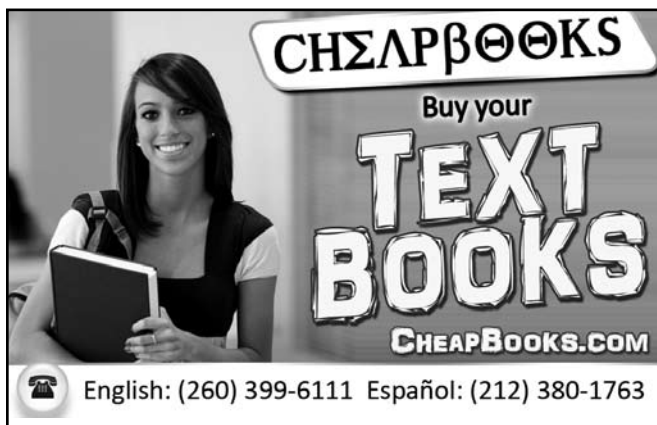
The relegation of a systematic implementation to solving a problem, be it social or technical, to an "underground" or, some may prefer "ad-hoc" approach, is many times a more cogent means to resolving the issue due to the speed and rapidity of normalization forces that interact with the corresponding parties. The analogous issue here is the highlighting of the fact that we students get old course material all the time even if we aren't offered them by our instructors.

Students get old materials from those who have taken the course previously. That's something that smart people do: they acquire inputs from their social environment to increase the efficiency and efficacy of their own learning experience, with the end goal of adding value to themselves via a strategic transformative process. Though I am cautious to accuse our professors of copying their colleagues' work, I am pretty sure that being the intelligent people they are, they will get their hands on whatever they need to get the job done in a timely manner and with an acceptable level of efficacy. If that includes older test papers or any other means of reference to formulate new tests, then I'm confident of their ability to obtain it without excessive trouble.

The old adage, if it's not broken why fix it, applies accordingly in this case. We are in essence a learning community, and if a particular methodology has been observationally functional for the history of the organization, then there is no point in injecting change which, as previously mentioned, could lead to other worrisome issues which we will have to contend with.

In summary, the status quo allows for the effective generation of new exams that tests the students' understanding of the course material, because obviously it has been doing so up till now. Any injections of change would need to be monitored closely and with utmost caution to prevent the formation of new organizational caveats that will become a bump in the road ahead, no matter the well intentions of the participating parties; and it appears that the cost benefit ratio for that operation may not exactly be what we want. We need to look no further than the shining bastion that is PDEng to see why.

COUNTERPOINT



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ARGUE

Should body checking be banned in hockey?

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Finals outside POETS at noon

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Winners have the chance to participate in the Ontario Engineering Competition!
The winning team members receive **\$300 each.**
runner ups receive **\$150 each.**

Contact Professor Kaan Erkorkmaz at kaane@uwaterloo.ca for more information

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

Editor's Note:

Point Vs. Counterpoint is a feature meant to stimulate discussion on thought-provoking topics. The views and opinions expressed here do not necessarily reflect those of the authors, *The Iron Warrior*, or the Engineering Society.

Like a Great Golden Weight has been Lifted

Bilodeau breaks Canada's gold medal drought



JON RADICE
3B CHEMICAL

It was really all any announcer talked about. It was always at the back of every athlete's mind, no matter how focused they were. The first few days of the Olympics were marred with that one phrase. "No Canadian has ever won gold on home soil." Previews for all medal hopefuls came with that disclaimer. From our Hockey team to our Curling team, from our sure-thing medalists to our long-shot chances, after listing the achievements of any competitor for this country, you'd always have that phrase underscoring every report.

No Canadian has ever won gold on home soil.

Montreal 1976 – summer games. Calgary 1988 – winter games. A total of 7 second place finishes, 9 bronze medals. Probably off by fractions of a second, fractions of an inch, or fractions of a score point. But as the saying goes; almost only counts in horseshoes and hand grenades. Canada still never got

to hear its own national anthem while on the podium at either of those games, the only country to do so after hosting twice.

We came close on the second day of the Olympics. Gold medalist in Torino four years prior, Jennefer Heil went down second-last for her moguls run. While nailing both jumps beautifully, Heil sped down the course with the fastest time thus far. Sitting in first place, Jennifer had to watch the final athlete, American Hannah Kearney, blaze down the course with an absolutely flawless run. Gold medal for USA, Heil beaten cleanly. And of course that night we again had to hear the announcers say that wonderful line.

No Canadian has ever won gold on home soil.

So then, nature would only be so kind as to put us in the exact same position the next day. Same course, same event, same predicament. Second last athlete, Canadian Alexandre Bilodeau, rocketed down the track. Watching the different camera angles it was no wonder athletes

don't last long in this sport; their knees bouncing right up to their chest many times a second. Any skier in that situation can attest to how much that hurts. It was mentioned that another member of the Canadian moguls team went through 8 knee surgeries in his career, and he was only 30. You really only get two Olympi-

And this won't be Canada's only gold, and it might not be the best story of these Olympics. But everyone remembers their first.

pics to prove yourself, a third if you're lucky. That kind of desperation translates well onto the runs. Another Canadian down, another near-flawless run. Bilodeau was sitting in first with one competitor to go.

It's funny, the first couple of runs you can't tell the difference between the runs and their scores. You're left to wonder what rank these people will get, outside of falls or fast times, you have little inclination to where the athletes will be placed, and the rational seems superfluous. After two days, you're a professional. As the last rider from France came down, we were picking apart all of his flaws; when he landed the first jump his feet were too far out. He was leaning too far back in his middle mogul sec-

tion. Checked his speed before the second jump. Sloppy landing. Faster time than Bilodeau, but not by much. Does that make up for his other errors?

The score came up. Colas from France ended up in sixth. Bilodeau came in first. The crowd went wild. The announcers were elated.

No Canadian has ever won gold on home soil. Until now.

And it's funny the effect it has on the country. Talking with the employee at McDonald's during breakfast, they said they'd been offered upwards of 200 dollars for the Bilodeau advertisement. I went snowboarding that day, and people were lining up at the tightest mogul runs to see how fast they ski down it- I saw a lot of funny injuries that day. I pass by the McDonald's on the way back, and I see that the Bilodeau sign is no longer up.

And this won't be Canada's only gold, and it might not be the best story of these Olympics. But everyone remembers their first. And the first did not fail to disappoint. A clean win, a clean out-classing of opponents. No falls, no controversy. Just all heart.

National Economic Day

Is that what Valentine's Day means today?



FARZI YUSUFALI
1B NANOTECHNOLOGY

In this modern day and age, there has been an influx of "economic" holidays being celebrated throughout the calendar year, the most profitable being Valentine's Day. With Mother's Day more recently joining the ranks of being very profitable, all of these comparable holidays celebrated in North America share one likeness; they are now victims to over-commercialization

and under-appreciation.

We all mindlessly flock to the nearest flower shop to buy a bouquet of roses or carnations (you know... just to be different) when this holiday draws near. In addition, a

portion of the male population scrambles to get a reservation in the most expensive restaurant or the best seats for the opera, be it for the girlfriend of two months or the wife of five years. From my perspective, this holiday is, by far, more stressful than the Christmas holidays (now that's saying a lot!) Not only do you have to prove your worth to your significant other, you also have to prove yourself to your friends and your co-workers when they ask you what you did to celebrate this "special" day. When things don't go as planned, you are now forced to describe, in detail, your shortcomings when you step into work the next morning.

Let's not forget all the single ladies out there! The single population suffers from a different kind of stress around this time of year. They not only have to endure the sudden upsurge in the couples' population, they must also find a "companion" for the Valentine's Day, even if it is for the night, in order to spare themselves from having to repeat "I'm single" fifty times over the next

morning.

However, there are some people who enjoy this holiday thoroughly. These people just happen to be the CEOs of mass retailers and prominent businessmen. This holiday rings in a whopping 14 billion dollars annually in roses, chocolates, greeting cards, diamond rings, perfumes and other similar products as gifts for that special someone. Moreover, restaurants and cultural venues like movie theaters experience their best profits on Valentine's Day. Hence, companies suck the money out of many hopeless romantics by introducing a number of

This holiday rings in a whopping 14 billion dollars annually in roses, chocolates, greeting cards, diamond rings, perfumes for that special someone.

chick-flicks, perfumes, and greeting cards just in time for Valentine's Day. As a money-wary student; it is safe to say that this is the biggest rip-off day on the calendar year. Who wants the added stress of having to spend an obscene amount of money on this day especially in these tough economic times?

Taking a minute to forget about the expense issue, the meaning of this day has also been lost. The effort in remembering this holiday is hardly commendable (especially with all the red crap that suddenly appears as soon as New Year's is over) and neither is the thought that goes into buying the generic bouquet of roses or box of chocolate.

Many of you probably know that this holiday originated from the story of St. Valentine and his love for his jailer's daughter. However, you, the readers, probably don't know that St. Valentine married many young lovers in secret in after Claudius II ordered that young men must remain single. This new law was passed in an effort to make his army more focused, especially after many deaths were caused by the half-hearted mindset of his young, lovesick soldiers. Furthermore, February the fourteenth, being Valentine's Day, is actually the day St. Valentine was executed after being found guilty of treachery to his king.

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Ironic much?

If you really want to uphold the spirit of love, why not celebrate your relationship on a day that means something to both of you. How about an anniversary? Or a birthday? Or even on a random day? I guarantee that your girlfriend/boyfriend/partner/spouse will appreciate the

gesture more when it isn't on Valentine's Day since you have taken the time to remember the love you hold for each other. A day reserved for celebrating a special connection with someone should hold some genuine meaning, rather than be reduced to some corporation's hey-day.

Future of Gaming

A Good Story: Don't Leave Home Without It



JON MARTIN
OBI JON1138

Go Canada!!!! So, I haven't been keeping track of gaming news as much as I normally would recently – the release of Bioshock 2 and the 2010 Winter Olympics might have something to do with that. I'm going to get the necessary mention of the Wii price rumour out of the way – analysts are saying that the Wii must drop to \$150 US in order to combat the continuing drop in sales. Maybe my guess was right and everyone on the planet has already bought one – or they just don't want to, no matter what the price.

In this issue I'm going to talk about the story element of gaming, by focusing on Bioshock and Bioshock 2. Now, I know I said I don't talk about specific games because some people may not appreciate that genre. I'm making an exception because story is integral to every game, it can make it a huge success or a bargain bin resident for years.

To start the story of the story of Bioshock, everyone needs to know about the website www.somethinginthesea.com. The site chronicles the research of Mark Meltzer, who is searching for the cause of numerous disappearances and creatures around the world. Mark began researching strange cases of young girls, around the age of 7, who were kidnapped from their homes by a creature from the sea. When Mark decided to find this creature he fails miserably, and then his daughter is kidnapped. After failing to find his daughter through the police Mark continues his own investigation, looking into a period known as "The Vanishing" - a time in the 40's and 50's when many of the most brilliant people in the world mysteriously

disappeared. All of the cases were linked to a man called Andrew Ryan. In his subsequent investigation Mark meets few people who swear that there is an entire city underwater, and that they escaped the carnage.

Anyone who has played the first game will know that the city is Rapture, built on the floor of the Atlantic Ocean by Andrew Ryan, and populated by people with a dream to be entirely free from laws and censorship. The city descends into corruption, with almost everyone becoming mindless murdering addicts in search of 'Adam'. Mark's investigation leads him to discover the location of the lost city, and even chartering a ship out to the location, all in search of his daughter.

Now, all of this wasn't just a story told in the beginning cut scene of Bioshock 2, or as a story on the website. The entire thing unfolded in real time, with the website as our means of following Mark's progress. Viewing his home office, it was possible to look at every photo and newspaper clipping; listen to every phone message and audio recording. When Mark started to receive mysterious packages, including puzzle boxes, codes, and hidden messages, we were able to unlock and decode them as well. One such box opened to reveal a series of panels, lit in different colours. When the engraved numbers were plotted they led to locations on the shorelines of several countries, as well as a date – two weeks in the future.

Of course people showed up at the appointed location and the correct time, and what did they find? Replica wine bottles from a restaurant in Rapture, with posters inviting the brilliant and brave to join the new Rapture family. All of these items were surrounded by the wreckage of small boats.

By the time Bioshock 2 was released I, like many other people, was wondering if Mark Meltzer had actually gotten to Rapture.

Then, a little while into the game I found an audio diary from Mark, talking about how he had managed to escape the ship before it was destroyed and make his way down into the city. Since then I have found three more diaries from Mark, chronicling his search for his lost daughter.

This is the kind of story that video games need more of, not just a flimsy excuse to blow stuff up – "The evil sorcerer is going to destroy the world, now go and fight monsters to save it, see you at the credits". If that is the kind of intro you get, are you really going to care about saving the world? Will you care about rescuing that princess who appeared suddenly at the beginning of a level and is gone from the story immediately after you finish the quest? No. After the hundredth alien, you just stop caring.

In Bioshock I found myself actually caring about individual characters, wanting to find out what happened to them. That is where the audio diaries I mentioned earlier come in; they are dotted throughout the world, some in plain sight when they hold the key to progressing, others hidden under staircases. The audio diaries provided you with a window into the world of Rapture before, during, and after its descent into madness. While you may be relying on a character to lead you through the city, giving advice and directions, you may find an audio diary they made many months ago. If you found out the person you are listening to had helped turn these young girls into monsters, would you still trust them? That is when you realise a game has really succeeded, when you have a feeling of trust in a fictional character.

In the first Bioshock game I found an audio diary in a destroyed building. It was of a mother talking about her sick daughter. She was offered the chance to cure her daughter, on the condition that she would give her

daughter up. Later on you find a second diary from the mother; following the difficult decision to give up her daughter to save her life. The mother saw her daughter, though she had been transformed into a monster. The mother mentioned the security code to their house, saying that if there was anything left of their daughter in that creature to come and find them. Later, I found their apartment, entered the code, and found a final diary, talking about how the mother and father couldn't stand seeing what their daughter had become. In the bed were their bodies, where they had chosen to kill themselves.

It was a very sad thing to see, and made you hate the people who had done this even more.

The depth of story in Bioshock astounded me, the entire story arc about the sick girl was totally separate from the main story. In order to find their apartment you actually had to go in the opposite direction of your goal. Exploration leads you to find so many insights into the dream these people had, and how they destroyed it.

I've been talking about Bioshock for this article because I think it is a benchmark against which all games, across all genres should try and shoot for. When games reach a point where they are so emersive, real and have the ability to really make you care about the consequences of your actions, then games will have reached a new level. Maybe people outside the gaming world will finally acknowledge games as an art form. After all, if movies are art, then games should definitely be.

So, go out and find that game that makes you care about the characters, the people, and the world. Take the time to cheer on the athletes at the Olympics, and try to fit some work and studying in there as well. Keep on Gaming



Why am I not a Ram?

ROY LEE
1B NANOTECHNOLOGY

Chinese New Year is something everyone hears about, but like many other cultural events it is often misunderstood or lacks concrete understanding of the customs and traditions that go with it. First off, you have to understand that Chinese New Year does actually fall on the first of the first month of the year. It is just that the calendar doesn't follow the same patters as of the Gregorian calendar. The Lunisolar Calendar actually has 12 months, but instead of having an extra day in a leap year, it has an extra month every few years. Each month is a constant 30 days.

So Chinese New Year doesn't follow the Gregorian calendar. What difference does it make? It makes a difference to those who are born in January or February. It is entirely possible that you may not be a Ram, Horse, Snake or Dragon as you have been told to believe. You could actually be part of the year before. Let's say for example you were born on January 20th, 1991. You would assume you are a Ram, when in fact you are a Horse(s Ass) because Chinese New Year fell on February 15th that year.

It is said that Chinese New Year is marked by the fight against a mythical beast, the Nien. It came around yearly and terrorised the villagers until one year when a little boy dressed in red, scared it away by screaming at the top of his lungs out of fear. This has led to the belief that the beast is afraid of the colour red and loud noises. Therefore most families will decorate their houses in red and place fire crackers near their door, so as to scare away the beast.

Each family celebrates Chinese New Year

a little differently, but there is a general idea. Before Chinese New Year the house should be cleaned "of the dirt from the last year" - a fresh start if you will. On Chinese New Year's Eve, you are forbidden to clean, so as not to sweep away the luck of the New Year. It is also customary to get new clothes for the New Year.

Now on to food: most Chinese families have a family dinner on the eve of the New Year. This meal is huge as it must feed the family for the New Year's day as well. It is considered unlucky to light fires and use knives. Some families also do not have meat on this day because it is said that this will increase longevity (for some families this is the case for the first and fifteenth of every month). Fish is often also served on New Year's Eve as it is a symbol of riches and abundance; fish is also carried over to the next day as a symbol of carrying last years riches to this coming year. Another food that is common is New Year cake, because its name (Nian Gao) sounds very similar to the words for High Year. It is therefore often exchanged between family and friends. It is also customary to give red envelopes to junior members of the family, mainly teenagers and children. They are often decorated with symbols of luck and wealth.

Chinese New Year festivities can last up to 15 days. The common days are the first few, as on the first and second day of the New Year it is customary to visit family. The third and the fourth day are prone to argument, and therefore people avoid visiting family and friends if possible. These two days are often used to visit the deceased. On the 15th day of the New Year there is a full moon and people celebrate the Lantern Festival, marking an end of the New Year festivities.

The Brew Man Group: Super Bocks!



DAN ARMSTRONG
3B MECHANICAL
NEIL PARTRIDGE
3B CHEMICAL

Hey everyone, welcome back to another Brew Man Group. We trust everyone has recovered from those dreaded midterms and the consequent hangover train (drinking during a hangover, to inevitably end with an even greater hangover later). For ourselves, we're fresh off our tenth issue (Booyah!), so perhaps it's time to turn it down a notch and placidly settle ourselves into "pale lager purgatory"... Bullshit! As always, Dan and Neil bring the best and most unique of beers to your doorstep, and by 'doorstep', we mean the back row of your morning lecture. Given the plethora of styles at our disposal, we will once again be covering something new. Our focus this time around will be the ancient, albeit still very delicious bock style. However, since we're not Coors-drinking sissies we will take it a step further and review the stronger variants with the surnames of "Doppel" and "Eis".

Neil: Bock, a variety of lager, has a long history and has consequently evolved over time. Originally, the first bocks were brewed in the estate of Einbeck (Germany) as far back as the 1300's. This brew used one third wheat to every two thirds barley malt with strong hopping, consequently producing a wholesome and delicious product. It was so highly regarded that exports were in demand as far away as Egypt! However through a series of unfortunate events, the town of Einbeck and its brews were destined to die out within two centuries. Continuing in the 1500's, brewers in Munich (That's right, friggin' Munich!) copied the style to much lesser effect. Brewers added only barley malt, less bittering hops, and brewed with water possessing far different characteristics. The result, a much

more tame version of its predecessor, is what we find sitting on LCBO shelves and inside your distant German relative's fridge. We can expect the aroma and flavour dominated by toasted malt, with perhaps a hint of noble hops (added for scent only), toffee, caramel, and maybe some chocolate. Moderate alcohol levels and darker appearance complete this style.

Dan: That accounts for bocks, but what of Doppelbocks and Eisbocks? In brief, Doppelbocks were actually produced in parallel to bocks by the monks of St. Francis in about 1634. The first Doppelbock, Salvator, was actually served as "liquid bread" since the monks were forbidden solid food (sounds like part of a well-balanced breakfast). It wasn't until the 18th century that Salvator was exported to the public, who promptly made a connection that this was but a stronger style of bock, thus naming it the Doppelbock (double-bock). Heavier body, darker appearance, diverse flavour palate, and (perhaps) most importantly, higher alcohol content.

In turn, Eisbocks were first produced purely by accident. Picture a particularly cold winter evening in Germany with some sober residents eagerly awaiting their next shipment of Aventinus Weizenbock, an 8% beer that combines the spicy flavours of a hefeweizen with the sweet maltiness of a Doppelbock. Reportedly, on this particular night, it was so cold that the beer partially froze. Apply your first year chemistry (even Neil can figure this one out) to realize that water freezes before alcohol, and there we find the lucky

recipients of this shipment skimming off the surface ice to reveal a fortified beer with extremely heavy body and increased alcoholic strength. Later, this beer was reproduced and spread worldwide under the name of Eisbock. The former world's strongest beer, the 40% Schorschbrau Schorsbock, falls under this style (though the new title, which was only won last week, goes to a 41% BrewDog IPA that uses the same freezing technique to achieve such high levels of alcohol).

Neil's thoughts: Getting my hands on the import brew Samichlaus from Brewery Schloss Eggenberg had its price; about 14 bucks at my local craft brew bar. Interestingly enough, this beer was imported indirectly through the States, and is thus labelled as a "malt liquor" since they can't possibly classify 14% ABV as a beer... I declare their import authorities both uneducated and sallyies! Nonetheless, I began my tasting... The colour, my god the colour, emerged as a scandalous garnet hue. Swirled around the glass, this sticky beer laces like a champ, hanging lazily on the side walls. The nose reveals a strong bock profile, almost no hops to be found. Instead, I detected a strong indication of molasses, and a light sourness of fermented fruit. On taste, pretty much the same aromas on the nose present themselves on the tongue; dark Munich malt and sticky molasses taken to the extreme levels. Remarkably, only a slight warming is felt on the way down despite the 14% ABV, consequently making me heavy lidded (and totally shattered) after my previous pints... Final opinion: the thick, powerful

malt taste can be compared to grindcore music; complex, intense, and memorable (metal w/ FTW), however simply overwhelms the senses in large proportion. Much can be said of Samischlaus. Enjoy it for half a beer but share with a friend for best enjoyment and safety. [4/5]

Recommended for consumption. Just do it at the beginning of a session, or risk incurring drunken debauchery and finally blacking out.

Dan: Sadly Neil has beat me in strength for this round; the Aventinus Eisbock reigns in at a mere 12% ABV. It pours a ruby-tinged dark brown, topped with a persistent white head that releases some clove and banana aromas, mixed in with chocolate and caramel malts and a tiny bit of alcohol. Smells pretty much like the regular Aventinus. Here's what runs through my head now as I take my first sips: Holy carbonation! This has got a great lively mouthfeel and full body; gettin' set for flavour time. Holy malts! Those are some sweet chocolate/caramel malts rounded out with a delicious spicy yeast profile. But then ... holy alcohol. I can deal with high-alcohol beers (I ain't no pussy, brah), but this is just a bit too much. That's not to say the beer becomes unpleasant; most of the flavours are great and I am enjoying sipping on this. However, given how incredibly delicious the regular Aventinus is, this particular Eisbock's accidental inception should have perhaps been left in 1930's rural Germany. To be fair, the sample I'm trying is a young new one from the LCBO, so I will toss a few in my basement as it would likely mellow out over a year or two. [3/5]

(Unenthusiastically) recommended for consumption. More importantly, try: regular Aventinus Weizenbock. Amazing flavour and doesn't taste like you chased your beer with a shot of vodka.

Props to hops // Dan and Neil



Review Based on the Trailer: Shutter Island



JON RADICE
3B CHEMICAL

There are very few sure bets when it comes to the movie business. Terrible actors can pull off some amazing roles in one or two movies, terrible directors can make Academy Award winners, and great directors can have a fall from grace. Martin Scorsese is one of those sure things; take him, add one part Leo DiCaprio, a heaping amount of organized crime, occasionally apply Robert DeNiro and Joe Pesci – and baby, you got yourself a couple of Golden Globes. But what happens when you change up the formula?

Being typecast is a terrible thing in most cases: Michael Cera better not start working out and lose his awkward teen look, or he is out of a job. Scorsese was king of the crime drama, and his move to more of a psychological thriller was an unexpected one; one that he hasn't touched since Cape Fear came out in '91. Sure we still have Leo, but everything else is unfamiliar territory. That isn't to say it's a bad thing. It's just something out of left field, especially for a mid-February film.

Looking at the movie, it seems like a movie that you've seen way back and just can't remember its name. Leo is sent to investigate this Alcatraz-like mental institution on an island, where a prisoner has disappeared. Well, obviously since the place is on an island, the hospital is filled with only the craziest of patients, and the doctors are obviously part of some shady-goings on. As the trailer progresses we see that Leo starts the slide to crazy himself, and the trailer starts to reek

with what I hope wasn't the big twist of the movie. Obviously I'm not going to spoil it if you don't plan to see the movie, but if you plan to see the movie – I'd almost recommend not watching the trailer.

But although looking quite derivative for a thriller, it is still Marty's movie. The shots are all very well done; it weighs in at almost 2 hours 30 minutes and will be full of great character development and empathy for our

troubled hero. It seems to give off the air of a Hitchcock-style suspense movie, and I think it'll nail it pretty handily. It might not be the best movie, but it's definitely the best movie so far this year. While I say that, I also believe that it'll be mostly forgotten by the time September comes out, and only when it's released on DVD will it be talked about again.

But on a different note, looking at the cast

list, why was only DiCaprio's name mentioned in the marquee? Ben Kingsley won a freaking Oscar as Ghandi, and that doesn't get his name in the trailer? I mean, I would get it if he had a small role, but the guy is the warden! Squabbling aside, I'd recommend you go see it. It's no Goodfellas, but it should be very entertaining. If you are reading this paper, then this movie is already playing in theatres.

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The Fashion Files – Business Casual



AMANDA LEDUC
3A MANAGEMENT

The dress code is business casual. How often do we as co-op students hear that? Personally, I've heard it a lot and I'm willing to bet you have too. Anytime I ask about dress code in an interview, I'm told "business casual". Anytime there is an event hosted by CECS, we are told to dress "business casual". So what the heck does this mean?

Let's begin by discussing where this phrase came from. In the 1970s, the energy crisis caused the government to mandate raising the indoor workspace temperature to save on electricity cost incurred for cooling. This led to managers allowing employees to get rid of the ties and jackets that had been part of the standard business attire.

So how do you dress business casual? Never fear, for Management 2012 is here to show you examples of business casual for both the ladies and the gentlemen.

Ladies: A reasonable length skirt (not mini-skirt) or full-length trousers (non-jeans)

paired with a top (such as a dress shirt, polo, or sweater set) is considered acceptable. A casual dress with appropriate skirt length is also acceptable. Ladies have more options than men when it comes to business casual as demonstrated by Karen and I.

Karen: Karen wears a more conservative outfit by pairing a simple knee length black skirt with a nice grey top. The look is completed by accenting the grey top with a black belt to add shape to the top. Karen finishes her look with a pair of knee-high black wedge heel boots.

A m a n d a : While most females pair a coloured top with a black skirt, I prefer to invert that style. This is one of my favourite



looks. I like the look of a brightly coloured pleated knee length skirt with a fitted black short sleeve blouse. To add colour to the top, I find that adding a pink pashmina to match the skirt is a great option. To finish the look, I add knee-high suede black boots with a 2-inch heel.

Gentlemen: A nice cotton trouser (such as khakis) with a leather belt, paired with a collared shirt (such as a dress shirt or polo shirt) and dress shoes (such as loafers) with socks is typically acceptable.

Yousif: Yousif is a bit closer to business formal than business casual. He wears a full suit, including a super awesome tie. I really like that Yousif has fun

with his tie and chose to wear something bright and exciting. The tie is about the only part of the male business casual outfit that allows a male to really express himself.

Adam: Adam is almost completely business casual. He wears a nice trouser, a green dress shirt and leather belt. The only thing that doesn't work are his sneakers. Somehow in packing his overnight bag, he forgot to pack dress shoes and therefore had to wear white sneakers with this otherwise perfect example of a male business casual outfit. Let this be a lesson to you, bad fashion stands out in a huge way so don't be a victim!

Overall, the one rule to always remember for both ladies and gentlemen when deciding on a business casual outfit is to never wear gym clothes, rumpled or ripped clothing, miniskirts, underwear as outerwear, inappropriately revealing attire such as bare midriffs (no matter how flat of a stomach you may have), and flip-flops. Furthermore, open-toed shoes and any shorts are typically considered a no-no.

Stay Classy,
Amanda
CFO

Book Review: The Curious Incident of the Dog in the Night Time



ALISON LEE
1B NANOTECHNOLOGY

Finally. A fiction book with a mathematical proof in the back!

Despite its long title, British author Mark Haddon's *The Curious Incident of the Dog in the Night Time* is quite a quick read. And no, it's not about math, even though there's an appendix detailing the Pythagorean Theorem. It is a story told from the perspective of fifteen-year-old Christopher Boone, a boy with what is assumed to be Asperger Syndrome. This disorder is a mild form of autism which causes Christopher to be hyper-logical.

He finds comfort in details and patterns, but his life is thrown off course by his parents' messy divorce.

This book is full of quirks that identify Christopher's condition, but at the same time blur the line between his struggles and those of our own. His narration shows how autism is just a label, and that he has individual needs just like everyone else in his life. However, his needs require a certain consistency of daily routine that pushes his parents' relationship to the breaking point. Since it is narrated by Christopher, the reader experiences the same misconceptions as he does until new information arises to clear it up.

The book begins when Christopher finds a neighbour's poodle murdered and tries to solve the mystery Sherlock Hol-

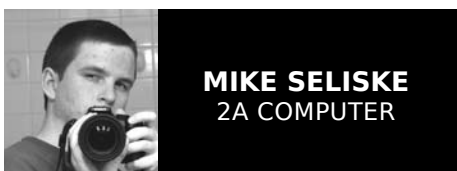
mes style. He gives a reason for everything and specifies his daily life at home, at school, and out in public, including why he hates brown and prefers red food. His search leads to more unanswered questions: Why does his father want him to stop his detective work? Why was his mother in the hospital? Why is the lady across the street nice to him when she is a stranger? I won't reveal everything, but this certainly doesn't play out like your average mystery novel.

The story isn't really about who killed the dog, but more about how Christopher confronts adversity. He is told by his teacher to write down his thoughts, so he creates this novel. The creative way that Haddon arranges it, from the math proof to the prime-numbered chapters,

is the reason this book has received so many awards. The plot is very simple and much is left to the reader's imagination. Following Christopher's logic and using his point of view to figure out other characters is a unique thought exercise and for me a welcomed change from figuring out my calculus textbook.

It's not always easy to find time to read a book, so if you don't want to commit to a long book, then this one is perfect. The chapters are compartmentalized and short, so you can pick it up and put it down with ease. It's great for grabbing a quick read over breakfast, at the bus stop, or before bed. This book has been out for seven years now and still has a holding list at the library, so it's a safe bet that you'd like it too.

Twenty Years Of Photoshop



MIKE SELISKE
2A COMPUTER

On February 10, 2010 Adobe Photoshop turned 20. It's hard to believe something so powerful could have been developed so long ago. In this article, I will share the evolution of Photoshop over the past 20 years and briefly explain the features introduced in each version.

Photoshop was originally developed for the Apple Macintosh to manipulate images obtained from a scanner, which at the time was very expensive. With limited functionality and no layer support but with many of the features that are still available in various forms today it was not widely distributed due to the cost of obtaining digital images.

Photoshop 2.0, released in 1991 with version 2.5 for Windows appearing in 1992 required an increased amount of RAM (Random Access Memory), from 2MB to 4MB. Paths was added which allowed for trimming around objects which could be saved, and 16 Bit colour support was added.

In 1993 Adobe released Photoshop 3.0, and with it introduced layers to the world which allows you to have different elements on different independent layers that can be hidden, moved around, and added

in almost any of the more complex designs.

In 1996, the introduction of Photoshop 4.0 included adjustment layers and macros which allowed repetitive tasks to be automated. History and better text support were introduced in the 1998 release of Photoshop 5.0 and 1999 saw the Photoshop 5.5 release introducing the 'save for web' feature.

In the year 2000, Photoshop 6.0 added a host of features such as layer blending and vector shapes. Photoshop 7.0, released in 2002, introduced the healing brush. In 2003, the first of the rebranded CS (Creative Suite) versions was released which was meant to convey that Photoshop is one tool in a suite of Many Adobe tools available. Interestingly, the CS version introduced currency detection which would not allow for the duplication of paper currency.

In 2005, Adobe released the 9th version of photoshop named CS2 which moved some of the tools to more efficient places within the workspace. In addition to workspace changes, a red eye removal tool and a vanishing point feature for perspective control were added.

Photoshop 10.0, also known as CS3 and released in 2007, allowed much faster loading. CS3 was released in two versions - Standard and Extended. Extended was meant for video and scientific purposes with a host of new features which would

make tasks performed by these industries easier. Graphic optimization for mobile and clone source palette were added which extended the capabilities of the clone/stamp tool.

Photoshop 11.0 (CS4) is our current version of photoshop which was released in 2008 and contains the addition of layer adjustments as well as an even more simplified workspace layout. At the software's early age, computer hardware was a limiting factor on CS4's abilities so tools were added quickly as system resources became more abundant; however, as time passed, hardware became less of a limiting factor and new features have been slow to arrive.

In all, Photoshop has become a staple within the graphic design industry, and its 20 years of maturity have helped it to become the best image manipulation program in the world. From black and white to 32 bit colour (16.7 million colours plus 256 levels of transparency), Photoshop has come a long way and has changed the world we live in. It is

now easy to eliminate sections of a photo or change the entire look of an image by moving hands or touching up body shapes (see <http://photoshopmistakes.com> for examples).

Happy 20th Birthday Photoshop!



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Thumbs Up/Thumbs Down



Thumbs down to tuition increase.



Thumbs down to ECE for having Hell Week after Reading Week



Thumbs up to CTV for streaming live Olympics... I am a student and I can't afford cable!



Thumbs down to assignments and labs being due during Reading Week.



Thumbs up to engineers being purple again



Thumbs up to ECE for having Hell Week after Reading Week



Thumbs up to all election posters going down



Thumbs up to the new Facebook layout.

Chad Sexington - We Interrupt This Program



CHAD SEXINGTON
4S MANGINEERING

Hey Sexy People!

Hope reading week treated you well and you had many a-sexalicious par-tay while absent from the 'loo. This week I'm taking a short non-commercialized break from your regularly scheduled sexytimes adventure to give a little PSA. No, it's not a public service announcement, it's a particularly sexy addendum! Firstly, I'll be addressing and subtracting the fantastic events in Vancouver, and nextly I'll let you in on my secret to having a happy week of not much reading.

Are you pumped about the Olympic games? If you aren't, maybe you should be. They're almost over, but you still have a chance to cheer if you haven't already. After

all, the athletes that represent our country at these mighty competitions, and the people that staff them, are setting an example for the rest of the world as to just how attractive this big mountainous country of ours really is, and the quality of the fine ladies and gentlemen coming out of these parts. Many people will assume that just because our homeland has much snow, that we will dominate this season's events. If you pay attention though, you will notice that not everything is a piece of pie (seriously, pie beats cake every day). Appearances are not always what they... appear. For us here in Waterloo, the few good sports to watch are the homeland favorites, Curling and Hockey. Seriously, did you see the Canadian Curlers in that final? Those boys and girls were on fire for the entire tournament, and they go relatively unnoticed by people who watch the more jazzy sports of Ski and Snowboard. As well, what better way to pass the time than to cheer on our Hockey

team, made up of friends and countrymen (and women!) who started off with a bang in the early games. The finals are sure to be exciting, so even if you don't like Hockey, watch them! In short, there's something exciting to watch for everyone at the 'Lympics, so don't miss these once-in-a-lifetime (for something that lives for 3 years and 364 days) events.

That brings us to the free vacation week that has been granted to us lowly engineering undergrads from up on high. What did you do with your reading week? Party it up, go on vacation, or slave away on your projects and labs? Whatever you did, I hope you took some time out to recharge your mental capacitors because the storm of final exams is a-coming and they're not far off the starboard bow. If you didn't get a chance to partake in any luxurious activities, next year you could try one of these:

-Write a children's book. Everyone loves

short stories with pictures and rhymes! You can do it in a week, right?

-Go on an adventure. A road trip, even down the road to stock up on frozen pizzas, will cure your winter blues, reds and yellows.

-Throw a themed party. Dressing up and having a wild night is hilarious, just don't pick 'regular clothes' as a theme.

-Build a skating rink in your backyard. Don't have a backyard? Do it in your kitchen! Your absent roomies will love the surprise.

-Try to set the world record for sleeping. Remember, comas don't count, so don't lose sleep focus or let people think you've kicked the bucket.

Next week we'll be back with the exciting conclusion to the Adventures of Chad and the Mountain Man.

Until then,
Stay Sexy!

The Adventures of Dangerman - Great Escape



DANGERMAN
DANGER '09

Dearest Reader,

To begin with...I could be bounded in a nutshell and count myself a king of infinite space^[1].

When questioned whether the world itself was a prison, Hamlet replied that it was "a goodly one; in which there are many confines, wards and dungeons, Denmark being one o' the worst." My first thoughts on reading this were that Hamlet had clearly never conceived of a gulag quite as dreadful as Calgary (Dangerman's current place of exile).

However, it quickly struck me as odd how often we adopt perspectives relating our daily lives to some manner of jailing. Doomed to a cubicle; saddled to a desk and blinded by pixels; chained to a relationship that feels more like familiarity and convenience than love; purgatoried in some endless engineering degree-program with seemingly no end in sight! What is it that compels us to reject the Matrix? Why do we look down on the relative comfort of steady living in pursuit of

some imagined greener-grass?

Buddha's four noble truths would suggest that this suffering of spirit we deliver ourselves to is actually caused by coveting that which we do not have and should not want. Further, that we perceive the absence of these things to be the source of unhappiness, which is delusion. The solution: stop wanting things you shouldn't want, you deluders!

Sounds easy enough, but admittedly it also sounds like a bit of a cop-out. What is life if not to achieve things, to struggle against adversity and make ourselves better than we currently are? What's wrong with wanting more?! More likely I'm simply misunderstanding Buddha and it's actually about discouraging unchecked ambition and wanton material desire, the results of which I'll agree do not lend to true happiness.

However, as far as prisons go and wanting to achieve some manner of escape, I propose there are only three options... Buddha would suggest the notion of prison is entirely in our minds and there also we should look for egress. Hamlet would probably just keep whining in iambic pentameter about accepting fate and ignoring any possible recourse. As for Dangerman...well, I would get the hell out!

Dangerman's Four Ignoble Semi-Truths of Escapism:

1. If you find yourself in a prison, real or imaginary, it is your sworn duty as a human being in full possession of a life that belongs to you and no one else, to seek your freedom by any means available.

2. Follow MacGyver's Maxim: Accept that any given problem can be solved with duct-tape, a Swiss army-knife, rubber-bands and a little ingenuity. A stylish mullet is also essential.

3. To paraphrase Hemingway, the world breaks everyone, and afterward many are stronger at the broken places, those it doesn't break it kills. Happiness might seem attractive, but it is also boring and inevitably taken for granted. Struggle on the other hand builds character. Rejoice that engineering is challenging and not a complete waste of time.

4. The first Dangerman, Patrick McGoohan -- the

proverbial "Prisoner^[2]" -- possessed an imagination tortured by the notion of modern society crushing the individual; that we are all prisoners. In his honour, remember, you are not a number, you are a free person. Your life is your own.

Whether this article finds you deep in captivity or in free flight, I hope at the least it finds you satisfied.

Till next time,

Dangerman

Eric.Dangerman@gmail.com

[1] Hamlet - Act II Scene II

[2] "The Prisoner" and "Danger Man" are British spy dramas that were aired in 60s and remain cult classics.

Semi-Formal
Around the World

When: Friday, March 12, 2010 - 8pm to 1am
Where: South Campus Hall, University of Waterloo
Tickets: \$10 per person

Bar Services will be available, and appetizers and desserts are included with price of admission! There will be prizes for the best international costumes, so be sure to wear your best attire! Tickets will be sold in the CPH Foyer during lunch and the Orifice!

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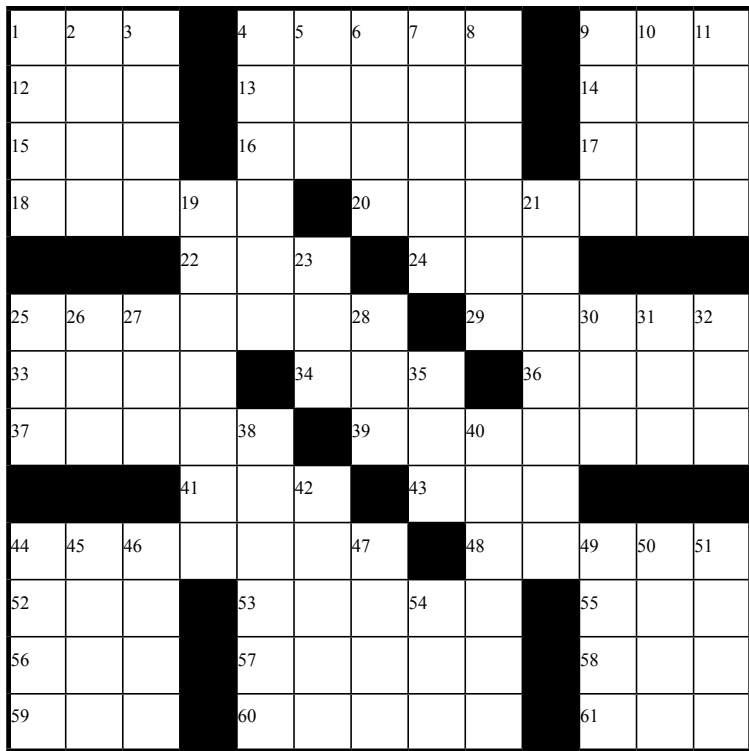
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The Iron Crossword

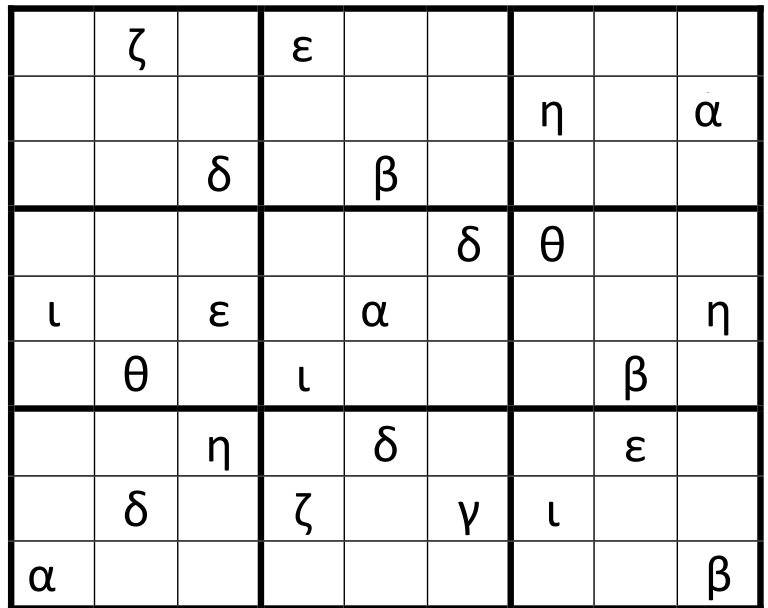
MICHELLE CROAL
3B CHEMICAL



The Iron Sudoku

ALISON LEE
1B NANOTECHNOLOGY

This issue's Sudoku variation: the first nine letters of the Greek alphabet!
Solve so that no row, column, or 3x3 box contains the same letters.



Across

- Mountain Standard Time
- Dionysus' goat-like companions
- Pester, usually to do a task
- Maize's main piece
- According to some, the world's most influential woman
- What many Chems will go into
- Alex Bilodeau's Gold: Moguls ___
- Alternate or substitute
- Official anthem of the EU "___ to Joy"
- The "ups" on the rollercoaster of life
- Lessening of hostility between nations
- Last chance to head to the lake
- Bashful the Dwarf was this
- To pay too much
- Intended or planned
- Adam and Eve wore leaves of this fruit
- A princess felt this through her mattress
- Blue in Montreal
- Brawl, often at the bar
- To make larger, with

growth or addition

- Able was Napoleon ___ he saw Elba
- Also
- A lie or false statement
- Expect, or be in store for
- A knight of the Round Table
- Canadian spectators having been doing this all week
- Imperial pressure units
- Menu option "___ carte"
- "Divine moment of time" (or an Indie band from Calgary)
- Measurement unit, approx. length of an arm
- Field Emission Microscopy (abr.)
- Usually served with tea
- CLTR-ALT-___ to log on/off

Down

- Net of string, rope or wire at regular intervals
- Rice wine
- Sine, Cosine and our friend Tangent
- Cleans up with a sponge (2 wds.)
- Exam month for winter term

- Walked, trampled on
- Vertical lines on a graph
- Beat or metre of music
- Lunchtime!
- Association of International Dance Teachers (Abbr)
- Last fall's high school, musical soap
- More than harsh
- Don't shave this off or you'll look like a freak
- Retail clothing store, famous for their jeans
- Your cell phone in class or a movie
- Roman numeral seven
- Scrambled, fried, poached
- Slang for agreement
- Malted barley brew
- Profit after expenses
- Better than Monday but not quite Bomber Wednesday
- Drama performers need to do this
- Delivery vehicles
- Opposite of fine, rough
- Moral principles, philosophy
- United States Air Force (abbr)
- The world's longest river

- Trolley
- Hercules and Achilles are examples
- Mimicked, imitated
- Surrounded by water
- Unsorted glacial sediment
- An age, almost a billion years

Zero

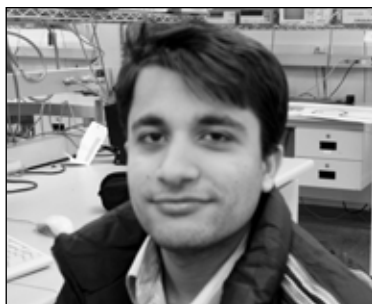
LEAH SIZKAR
2A GEOLOGICAL



THE IRON INQUISITION

Amrita Yasin, 3B Chemical

"What sport would engineers compete in at the Olympics?"



Faizan Sheikh
3B Mechatronics
"If they let robotics play soccer, my class would compete in that."



Tommy Chan
4B Mechanical
"Luge, because it's fast with lots of G-force."



Rohan Mahimker
3B Mechatronics
"We would be too drunk to play any sport."



Laura Johnson
4B Chemical
"Curling."



Yousif Al-Khder
3A Management
"Lack of sleep - Who can stay up the longest?"