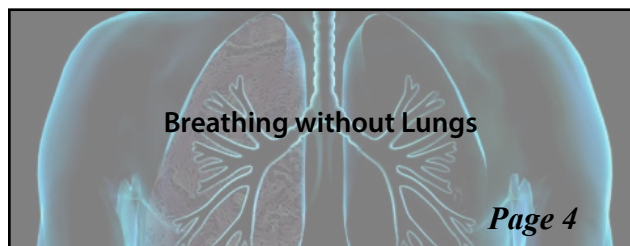


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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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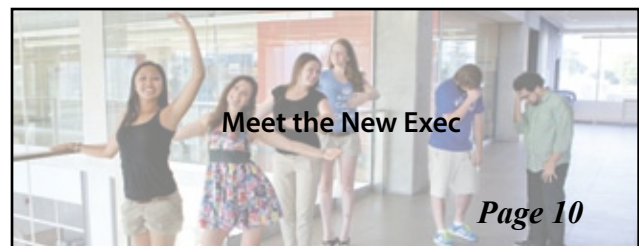
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CERN Discovers Boson Consistent with Higgs



MSNBC

Directors and physicists from CERN presented their experiment findings recently at a seminar in Geneva.

KEVIN LIANG
3A CHEMICAL

On July 4th, 2012, CERN held a seminar to present preliminary results from their ATLAS and CMS experiments. Both experiments observed a new particle in the mass region of around 125-126 GeV. This mass has been confirmed at a level of five sigma. These results are so far constant with the behaviour of the Higgs boson. However, CERN was very meticulous in stating that a “Higgs-like-particle” was discovered. Further data and analyses are still needed to cement the new particle as the Higgs boson. This pretty much summarizes the seminar, but it still leaves many questions for non-physics majors.

The Standard Model of particle physics, often abbreviated to SM in journals,

explains electromagnetic, weak, and strong nuclear forces. Developed in the 1970s, the SM predicted and explained a countless number of experimental results. The final piece of the puzzle to verify the SM is the Higgs boson.

Generally, the public knows that the Higgs boson gives all other particles mass. This is entirely false. The Higgs field is what gives fundamental particles mass. The Higgs field is a non-zero quantum field that permeates the entire Universe. The Higgs field interacts with all particles with non-zero mass. The stronger the particles’ interaction with the Higgs field, the more massive the particle. Since the photon has zero interaction with the Higgs field, it is massless where as a top quark has a much stronger interaction with the Higgs field and, therefore, a much larger mass. Much like the how

an excitation of the electromagnetic field produces a photon, an excitation of the Higgs field produces a Higgs boson. The only way to determine the existence of the Higgs field is from the detection of the Higgs boson.

With a mass of around 125 GeV, the Higgs-like-particle is 133 times more massive than a proton. A fundamental particle with a mass of around that of a neodymium atom is surely to be extremely unstable. It was only from the measurements of the Higgs-like-particle’s decay product was its final mass determined.

As was already mentioned, there were two experiments that presented these new results: ATLAS and CMS. The interesting thing about how the LHC operates is that the ATLAS and CMS collaborations are not allowed to talk to each other.

They both share the particle accelerator but have very different equipment and analytical software. This allows a single institution to present independently verifiable results at one time and increase the confidence of their results.

Although these new findings are very exciting in the field of particle physics, there is still much more work to do before a true understanding of the Universe is achieved. The SM does not account some very important aspects of the Universe. Gravity, as explained in General Relativity, does not fit into the model. Neither does dark matter and dark energy, which makes up about 96% of the Universe from cosmological observations. Once the SM is experimentally verified, it’s going to be back to the drawing board to come up with a much more general theory of everything that encompasses these elements.

Bees Found to Reverse Brain Aging Effects

EMILY GRUBER
2B NANOTECHNOLOGY

Recently, a team of scientists working together from Arizona State University and the Norwegian University of Life Sciences published results indicating that bees could be capable of reversing the effects of aging on the brain. The results were published in the journal *Experimental Gerontology*, and they indicate that the molecular structure of the bees’ brains are altered when they return to the nest and perform certain tasks.

It is already known that when bees live solely in the nest and spend their time caring for the larvae, the bees remain mentally young and competent for as long as they are observed. This has been demonstrated in previous research. Contrarily, when the

bees leave the nest to perform other tasks such as gathering nectar for food, their aging speeds up significantly, and within only two weeks have marked signs of intense aging. This includes worn wings, hairless bodies, and, most importantly, they lose some brain function. This loss of brain function is usually measured by their ability to learn and master new tasks.

To investigate this effect, the researchers were interested in the question of what would happen if the foraging bees changed tasks to again live in the nest and take care of larvae. The bees were forced to change roles to perform because the researchers removed all of the younger bees from the nest, and left only the queen and the babies. After a period of inactivity, the bees redistributed roles, with some of the previously aged bees returning to foraging, and

some staying to care for the larvae. The results they found were intriguing: within ten days of forcing the bees to change tasks and returning to live in the nest (a role typically filled by young bees), half of the previously aged bees now caring for larvae had significantly improved their brain function, by improving their ability to learn new things.

When the bees that had shown improvement were compared to the bees that were not, an obvious change in brain proteins was observed. In the recovered bees, they found an increased amount of protein Prx6. This protein is known in humans to protect against age-related dementia as well as diseases such as Alzheimer’s. A second protein discovered to be in higher rates is one that protects other proteins from being damaged when brain tissues are exposed

to cellular stress.

The mechanism of this rejuvenation of the bee’s mental capability is unknown, other than the fact that nest and larvae care responsibilities are typically performed by younger bees. The researchers have said that this proof suggests that cures for age-related dementia should involve a social intervention aspect, and not simply involve new drug treatments. This phenomenon observed in bees holds potential for humans, because the observed proteins are the same as those that exist in humans. These findings show that it may be possible for the proteins to spontaneously respond to social situations, leading the researchers to wonder if simply changing how we deal with our surroundings as we age is something we can do to help our brains stay younger.

Letter From the Editor

I'll Be Going Now, But Not Before a Few Words of Appreciation



Hello again faithful readers! Hope you're ready for your exams, or to finish your work term, or to read this paper of course. Thank you for reading the paper, as always.

I hope this editorial is as enjoyable to read as my others, which I hope were enjoyable in some form. I heard much about my last one, which I wrote in a comatose-state on a Monday morning, which just goes to show you, you don't have to do them super early to write something people like, which is how I'm excusing myself for writing this one late.

The Tin Soldier can be found in the back half, since we felt the 6 pages of content we had was about right enough to fit everything we wanted in, but not stretch it too far. I hope you get a few laughs out of it!

There are a few things I've tried doing this term to improve the paper and bring some freshness to it. The big font changes I did in one of the earlier issues was one of the design changes I felt was good to bring a consistent design to the paper. I have redone some of our templates and after I am done with this issue I will be making a transition document that will rock everyone's socks off. Farzi will be the first test of such sock rocking.

The circulation has been a funny one, since some weeks have racks with bizarrely high popularity, which then taper off to almost nothing in future weeks. The reasons for this could be almost anything, but the paper has been making it out to racks as soon as we can get them up. While I still have a bit more to say before I get too into thanking people, I would like to thank Cody Shaw for going out to *every single rack* in the few days before the paper is released. His level of dedication is impressive and it has helped me a lot in getting the circulation done on time. You've had to do more than most circulation managers have, but you've done an excellent job!

The website was something I was hoping Nan and I could completely revamp this term, but having picked one of the worst academic terms to be an editor, and her being in my class sharing the pain, I resorted to my everyday duties. Much as Jon continued working on the archiving past the end of his term, I'm hoping to pick up the website as a pet project of mine that I would like to finish overhauling in Farzi's term ideally.

We've had a few more columns come in this term, which I'm excited about having. *Leafy Thoughts*, from Nina Feng, 1B Environmental, has been a good start at getting some more environmentally oriented articles in the paper. *From Book to Movie*, from Jon Martin, 4A Civil, has been a great counterpart to our other entertainment-related articles this term. Thanks to the both of you for your initiative in starting these great columns!

I've also been working with Engineers Without Borders to give them a more prominent role in the paper, in exchange for them submitting regular, thoughtful content. This is one of the ways I wanted to branch out to different engineering students who may not

just hold an interest in EngSoc events, as great as they are. *The Longer Trail*, which is a digest of the blogs from Waterloo's current chapter Junior Fellow Jimmy Ehrman, has been a great addition to the paper. Thanks to Jimmy, and to Rob Reid, EWB's Research Team Lead, who brought very thoughtful submissions.

Mary Bland, the wonderful business manager, for all her financial assistance this term and for helping me out with administrative tasks. You're awesome, Mary! Thanks so much!

I'd like to move on to thanking the rest Iron Warrior family for their contributions this term. Our champion copy editors, who usually consist of Hannah Higgins, Kevin Veloso and Nancy Hui, are superb and I'm glad I could count on you to get things edited on time. Suril Shah and Nikhil Joy have been two great newcomers, Suril with his expert layout knowledge and Nikhil with his fun article submissions. The 2014 nanos on a whole have been great at getting content in, and I'm glad to have had their (typically humorous) submissions and help. Noah MacCallum, one of my classmates and an all-around cool guy if you meet him, has had these amazing out-of-left-field articles that I have heard lots of great feedback on. Thanks to all my other staff writers and our contributors who have helped out a lot this term!

I'd like to extend a special thanks to a few of my classmates and friends, who in addition to helping out in their own way have kept me sane for the most part this term. Daniel Osorio has had great submissions in his *Unsung Heroes* column and keeping me upbeat all term, Emily Gruber got these huge bursts of ads and made sure I got out in the evenings instead of just staying holed up working on the paper all night, Nan Huang helped me out with the social media work and was down to help all the time, and Zac Young came in a few weekends to give me some much needed help, let me bounce ideas off him and spent countless hours working on stuff with me on campus for *The Iron Warrior* or for school. I only have so many words to express my gratitude, but the four of you have easily deserved a great deal of it. Thanks for being some of the best support I've had this term! I'm so lucky to have you as some of my best friends and fellow nanos!

Every term, we give out two awards: the Iron Pen Award, which goes to the staff member who publishes the most content in the term, and the Editor's Award, for members who show great dedication and contribution to the newspaper.

Starting with the Iron Pen Award, two writers in particular really pulled ahead with how much they could write, and right until the last couple issues it was pretty close between Jon Martin and Nancy Hui. It seems like civil engineers have lots of time to write articles in their spare time! In the end, this award went to Nancy Hui, who wrote 11,684 words this term. She also had the highest quantity of articles, submitting sixteen to the paper over the last five issues. Thanks Nancy for all your submissions!

While there are many people who helped me out greatly this term, two writers in par-

ticular stood out in such a way that I would arguably have been unable to complete my duties with such timeliness without them. The first Editor's Award this term goes to Hannah Higgins. Even though you chuck old *Imprints* at me when I'm being annoying (good thing I hid the softball), you came to every production weekend and stayed well past when I was expecting. You took the Point Counterpoints I threw at you like a champ and copy edited almost all the articles we published this term. You're only entering 2A next term and I would be here until publishing time if I didn't have your help each weekend. Thank you so much for coming in!

The second Editor's Award goes to Jon Martin, who was EIC for the previous fall term. While I'm sure most people would have unfriended me from Facebook, changed phone numbers and avoided campus with the number of times I needed help at the start of the term, you answered my questions helpfully and made sure I knew what I was supposed to do before I would go complete my tasks. Your help in getting the archiving done and helping me get a good start going this term was invaluable. Thanks for taking time out of your FYDP sessions to answer my last-minute questions and to act as the rational weight to some of my lofty ideas. Good luck finishing fourth-year, you're almost done!

For the winter term, outgoing VP Internal Andrew Fisher will be the new Editor-in-Chief. Andrew, I'm incredibly confident you're going to do an amazing job. Having seen how smoothly you have managed your portfolio in EngSoc, I'm sure you will keep the paper operating in prime shape and, as always, you are welcome to ask for help, advice, or just chat out things if you need it. Best of luck!

Speaking of future editors, I'd like to thank Farzi Yusufali for being a more involved off-stream editor this term and keeping me on task. I hope your fall term goes well; I'll be sure to pester you as much as you have, for your sake of course.

As a final note, thanks to everyone who helped me out in any other way this term! Especially my mom, who would point out spelling mistakes in my already published issues and tell me the paper had been offline for a week and a half. I'm glad you and the rest of my family read the articles we publish and give me kind words of encouragement, and understand why I haven't been home this term.

I hope everyone who has been reading this term found our articles insightful, interesting, funny, and/or thought-provoking. 111,000 words on 96 pages from 57 contributors over the last 4 months, put into a total of 10000 copies distributed to 30 racks. *The Iron Warrior* may feel small at the meetings, but there are many who play a part in putting it together. It has been a tough, yet great, term as Editor-in-Chief, and I'm incredibly thankful for the opportunity to get this experience. If you have any questions or comments, or just want to chat, send me an email at iwarrior@engmail.uwaterloo.ca, or send a message to our Twitter at [@TheIronWarrior](https://twitter.com/TheIronWarrior), or to our Facebook at facebook.com/TheIronWarrior. I love hearing from you :D

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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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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Germany Undergoes Revolutionary Energy Experiment



HANNAH HIGGINS
IT NANOTECHNOLOGY

In 2010, the German government unveiled an ambitious plan to undertake a large-scale energy turn which has been popularly coined as an ‘Energiewende’, and reduce the nation’s greenhouse-gas emissions to 40% of 1990 levels by 2020. By mid-century they planned on cutting a further 40%, to total a 80% reduction. At the time, this was the greatest shift from fossil fuels to renewable energy sources to be attempted by such a highly industrial nation. Although this feat would certainly be challenging, Germany also generated approximately 20% of their electricity through nuclear power, which only produces greenhouse gases in very low volumes. The pre-existing infrastructure and prominence of nuclear power in Germany would somewhat ease the country’s progressive transition toward a more sustainable future.

The catch – in response to public concern following the tsunami nuclear disaster in Japan, Angela Merkel, Chancellor of Germany, ordered the immediate closure of the nation’s eight oldest nuclear plants. Within months, the government had finalized plans to close the remaining nine by 2022. In spite of this set back, the Energiewende will proceed without Germany’s most significant source of low-carbon power.

In order to meet this challenge nationwide, Germany will have to unite in the

spirit of innovation, and work to build and apply renewable technologies at a massive scale and at an unprecedented rate. While the cost of the Energiewende is uncertain as of yet, such a ground-breaking feat will only be possible at an enormous expense. Furthering the difficulty of this task is the reliance of German industry on reliable and reasonably-priced power which cannot be undercut while the nation strives for sustainability.

Germany’s energy industry leaders are already pursuing multiple strategies in the replacement of nuclear power. There are plans to install massive wind farms in the North Sea off the German coast, and to place new transmission infrastructure which would transport the power to the nation’s industrial regions. These companies are also searching for large-scale power storage that is relatively cheap to build and operate in order to continue to supply factories with energy despite any temporary environmental conditions which would limit the availability of wind or solar.

Although all are agreed that this endeavour will be quite costly, it has been estimated that Germany will spend between \$125 and \$250 billion on new infrastructure alone, depending on how quickly new technologies can be introduced and their prices lowered. An even greater long-term cost will be incurred by the expensive process of decommissioning nuclear power plants. These costs do not include those faced by ordinary citizens, who now pay a renewable energy surcharge of approximately 15 percent on their regular electric bills.

Perhaps the most ironic consequence of Germany’s decision to abstain from nuclear power is the country’s increased reliance on coal as a source of power while wind and solar sources are being developed. But in spite of this, Germany can benefit quite greatly from their progressive stance on sustainability. Any renew-

able energy technologies they create will find a ready market for export, supporting the nation’s \$12 billion renewable energy industry. And if Germany succeeds transitioning to renewable energy they will have created a template for other industrialized nations to chart their own paths to sustainability.



Greensmps.org.au

Wind energy is one of the major sources Germany hopes to use in the future.

The Body of Evidence



NANCY HUI
2B CIVIL

On Tuesday, July 10th, Canadian scientists held a funeral-themed protest against the federal government’s cuts to research in the budget. Hundreds dressed in white lab coats and black mourning garb marched from the Ottawa Convention Centre to Parliament Hill in a mock funeral procession. Borne on their shoulders was a wooden coffin containing the “body of evidence,” and among their number walked the scythe-wielding, robed and hooded Grim Reaper. The procession of scientists paid their respects by placing books into the coffin. Speakers representing the scientific community and the civil community delivered eulogies for the deceased “Evidence.”

The protest was sponsored by The Council of Canadians, a progressive citizens’ association that tackles Canadian policies on fair trade, water quality, energy security, health care, and other social and economic issues. Protesters disagree with the Conservative majority’s overall economic agenda, which emphasizes economic development at the risk of environmental protection and regulation, as well as weakening research and development, as well as the governing party’s generally neglectful treatment towards research results and data collection.

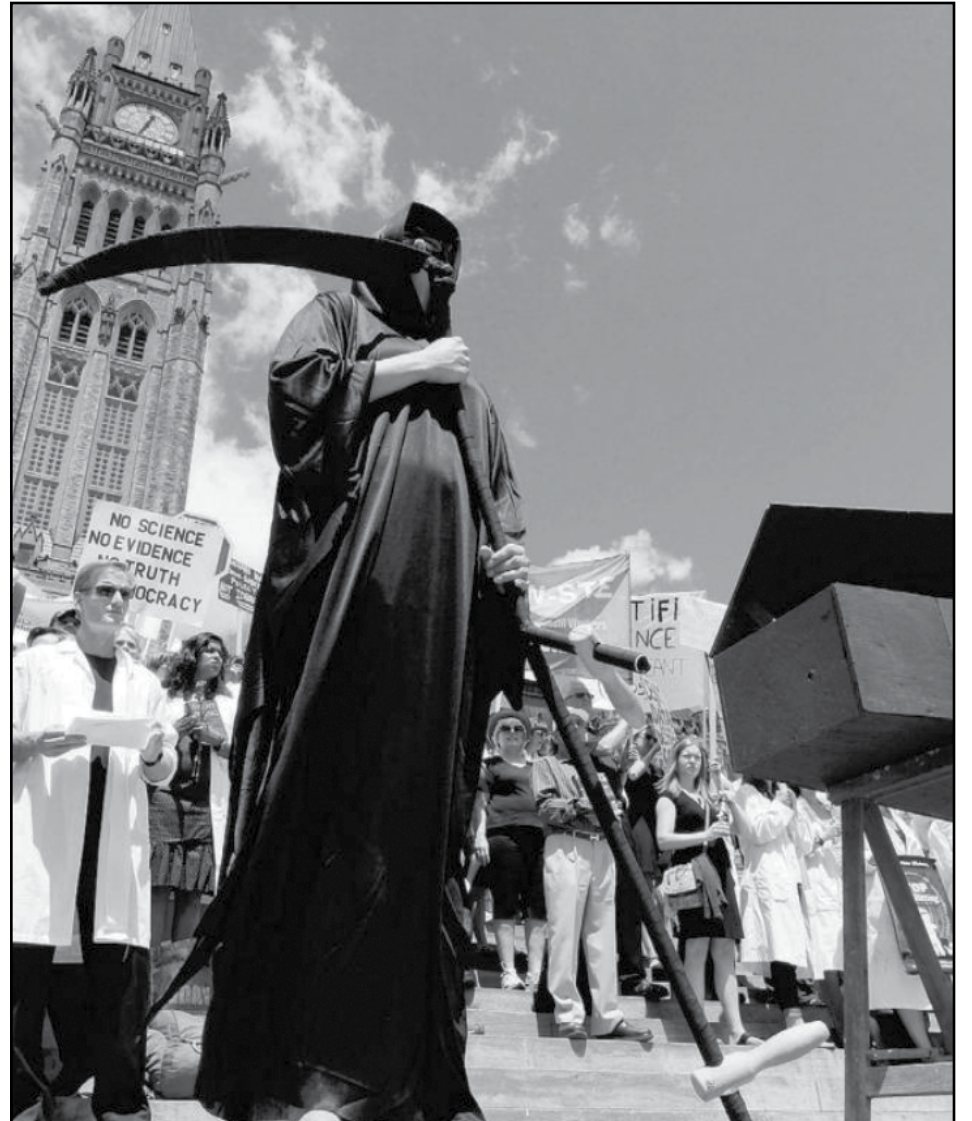
A major point of protest was the planned closure of the Experimental Lakes Area in Kenora, Ontario, a research facility that studies the effect of acid rain and pollution on freshwater quality. With federal cuts to its funding, it will close in 2013. Budget reductions are also planned to research programs at Environment Canada, Fisheries and Oceans Canada, Library and

Archives Canada, the National Research Council, Statistics Canada, and the Natural Sciences and Engineering Research Council of Canada. Other research institutions, like the National Council of Welfare, the Polar Environment Atmospheric Research Laboratory, and the First Nations Statistical Institute will also be closed outright. Recently, the mandatory long-form national census was eliminated, thus decreasing fidelity of data collected.

The Prime Minister, Stephen Harper, also has a record of impeding scientific evidence in public debate, such as eliminating the position of the National Science Advisor in 2008, censorship and coercion of government scientists in accordance with “standard practice” as stated by Peter Kent, Minister of the Environment, and the silencing of the National Round Table on Environment and Economy, which provides independent advice on environmental protection and economic development. Furthermore, the Conservative government has a track record of systematically ignoring data, for example, the Vancouver data supporting the benefits of government-funded Insite safe-injection sites for chronic drug users to reduce infection, treat mental health issues, and administer first aid.

However, it should also be noted government funding towards science and research has actually steadily increased during the past ten years, including under Conservative leadership, although it is also shifting an emphasis from basic research and data collection into applied research and commercialization. This is reasonable, given that all governments attempt to nudge research towards profitable applications.

The protestors bring up a valid point about the Conservative government’s questionable approach to its interpretation (or lack thereof) of scientific evidence in a



The StarPhoenix

The Grim Reaper was one of many costumes donned by scientists and academics who attended the protest.

bold, media-friendly allegorical statement, but should be careful of polarizing the scientific community. In order to avoid losing support, they should acknowledge a more balanced view of the federal government’s scientific research funding strategies in order to strengthen their own position, if

only to avoid being labelled as extremists themselves.

And with regards to the theme of their protest - they should consider a different catchphrase. The first search result for “Body of Evidence” is a 1993 erotic drama starring Madonna.

Breathing Without Lungs

Another Use for Micron-sized Spheres



FARZI YUSUFALI
3A NANOTECHNOLOGY

Speaking from experience, having your computer die on you at the worst possible time has become a sort regular occurrence of sorts for me, especially when writing IW articles. Pardon this almost-inappropriate segue, but, in the same way, your lungs can do the same, especially when you're seriously ill or on the operating table.

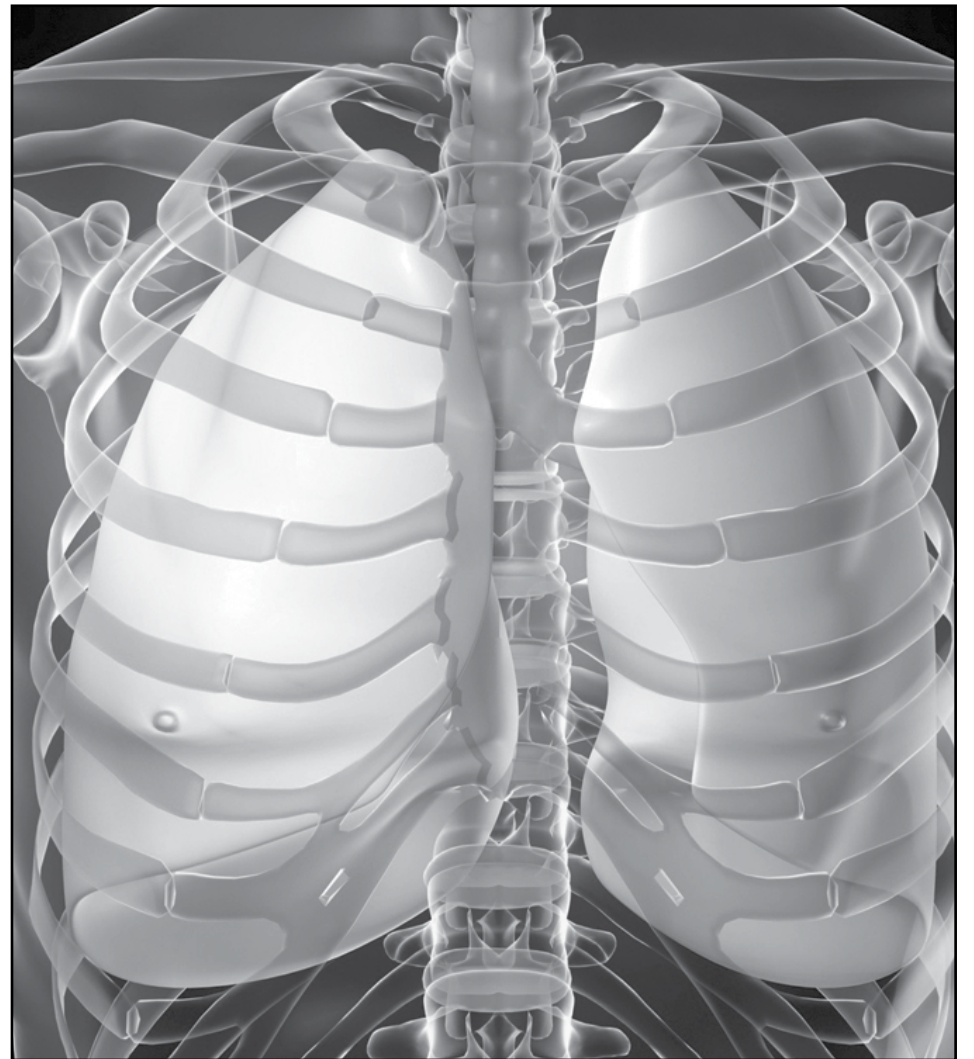
Unfortunately, this is a common occurrence among the sick in hospitals where patients often suffer serious brain trauma or die from prolonged oxygen deprivation on the operating table while doctors try to put long-term systems (like heart-lung bypasses) into place. The methods currently available are only effective if the lungs of the patient are working at full capacity. If that is not the case, or the lungs themselves are being operated on, then even injecting pure oxygen into the blood (in an effort to keep the organs of the body functional) is not an option as oxygen bubbles could block blood vessels thereby adding to the problem. The only procedure currently in use by hospitals is to hook up to a bypass machine that oxygenates blood outside the body and then passes the blood through body again – however, this procedure is too long for a case that requires immediate attention.

As such, Dr. John Kheir of the Boston Children's Hospital, the author of this study, suffered a similar experience where a nine-

month-old girl suffered severe brain injury and died (as a result of oxygen deprivation) on his operating table in the twenty minutes taken to hook her up to the heart-lung bypass machine. This experience started him on his research to find a fast-acting solution to this problem that could do the job intravenously. His research, as reported in *Science Translational Medicine*, consists of oxygen-filled microspheres that are three micrometres in diameter suspended in fluids commonly used in transfusions at dilute concentrations (to allow the spheres to permeate to the smallest capillaries in the body). *In vitro* studies indicated that the transfer of oxygen from the microspheres to haemoglobin occurred within the four seconds of the microspheres being introduced. *In vivo* studies yielded more promising results as the animals did not experience organ injury even when they were asphyxiated and were only receiving oxygen from the microsphere solution.

The next steps in taking this research forward are to determine how long this form of therapy can last and how widespread the use can be for patients. Aside from use in the critical moments of an emergency, this research can be applied to patients on ventilators in intensive care. Over the next couple of years, more *in vitro* studies will be conducted to confirm the clinical application of this technology as well as the possible extension of this research to other situations like cardiac arrest and severe bleeding.

The goal of this research, as stated by Dr. Kheir, is to provide an off-the-shelf solution to this common problem of oxygen



Inquisitr

Micron-sized spheres could prevent lung-related deaths in hospitals.

deprivation when dealing with emergency situations in hospitals. I, for one, am hopeful that this researcher's technology comes

to fruition soon considering the drastic changes it will make in almost every major health care system in the world.

Illegal Things That Are Eco-Friendly



NINA FENG
1B ENVIRONMENTAL

LEAFY THOUGHTS

Being 'green', or 'eco-friendly' has been a huge trend in the past decade or so. Industries, governments, and communities are slowly but surely transitioning from the consumerism of previous years, to the sustainability of recent. Many people are trying to find ways to reduce their eco-footprints, but there are some practices, specifically semi-illegal practices, that are already surprisingly eco-friendly. Here are some illegal practices could help save the world:

Hemp

Hemp is one of the most versatile plants in the world as it can be used in anything from clothing to health foods and even to biodegradable plastics. One of its most useful applications is its potential as a bio-fuel by which hemp biomass can be converted to methane, methanol, or gasoline at the same cost as petroleum. Plus, it's much better for the environment as hemp fuel burns clean and does not contribute to global warming. As a biomass, it can produce 10 tonnes per acre, meaning that, if 6% of U.S. crops were hemp, all of their energy needs would be taken care of. While hemp can be legally cultivated and used in Canada, it is still banned in the majority of the United States due to its relation with marijuana. The DEA (Drug Enforcement Association) has long resisted its use, despite the fact that it is a low THC strain of the cannabis plant. THC (Tetrahydrocannabinol) is the main psychoactive constituent of marijuana of which hemp contains less than 0.3%, compared to marijuana's 2% - 20%. Some states have managed to

secure its industrial use through licensure but many are still awaiting approval to start cultivating it on American soil. It's too bad, really.

Piracy

It's not a secret that file-sharing is one of the main ways that people obtain music, movies, and games online. The fact that it's illegal doesn't stop most people from doing it anyway. Most of the time, people just want to save money or are too lazy to go and buy something themselves. However, it's not too hard to see that pirating files is an effective way to reduce one's material usage. The amount of tangible material that would have had to be produced for just one person's entertainment use is

often reduced to just one (albeit 2-terabyte) hard drive. Internet pirates are saving us resources.

Small house living

It is becoming more and more popular for people to live in tiny houses or micro-apartments, living spaces that have been designed to be as small as possible, while still maintaining a decent level of comfort. Due to their greatly reduced use of material and their sustainable design, these houses are an ideal solution to counteract the amount of unnecessarily huge dwellings that have become the norm for people, especially those who live in suburban areas. Though many have been successful small-house living, the building codes for a large

number of regions do not allow others to do the same thing. Housing proposals have to meet certain criteria, and often there is a minimum square footage that a house must meet, depending on the region. Some people have found loopholes in the regulations though. For example, Tumbleweed Tiny House company founder Jay Shafer began by building on trailer foundations, as trailers are not technically under the building departments' code and have much less restrictions in terms of size. Tiny houses – 1. Building codes – 0.

Obviously, there are a lot of things to consider when attempting to legalize something, but it would certainly be ecologically beneficial if some of these things became legally acceptable.

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KATE HEYMANS
3A CHEMICAL

YOUR BIWEEKLY CHALLENGE

This article is all about spending a little less or a little more all for the right reasons. Questioning your purchases before you make them and making them last a little longer before you do.

Do you really need it? Before you buy something new for yourself, ask yourself if you really need it. This applies to anything from clothes to laptops to all those fancy (but useless) gizmos out there. Just because something looks cool does not mean you need to buy it (despite all those commercials telling you otherwise).

Borrow, exchange, share. Guess what? There's probably someone you know who has exactly what you need and isn't using it. Instead of buying new things, ask your friends, family and other acquaintances if you can borrow stuff from them. This applies to sharing vacuum cleaners, dishes and cutlery with your roommates. Instead of purchasing a vehicle, try joining the Grand River Car Share (it's probably cheaper).

Once you decide you no longer like your clothes (or anything else you own) try or-

ganising a clothing swap, donate them to a clothing drive, or you can even try to sell things through a garage sale. Kijiji or Craigslist is always a great choice for this. Remember, one man's garbage is another man's treasure.

Buy stuff that will last. We all like a good deal whether it's for clothes, food or something else. We're inclined to go for the cheaper deal. Sometimes that isn't the best choice. We buy ten cheap shirts (wash them once and see them fall to pieces) instead of getting one good one which will last longer (and look nicer). Is it really worth getting a brand new iPhone (which will break as soon as you drop it) or is an unbreakable Nokia (Note: Flip phones are never unbreakable even if they are Nokia) a better choice?

Reuse and Repair. A lot of stuff just gets thrown away because one small component is sort of, somewhat broken. All it takes is one small repair to make it as good as new. Yes, it's a bad idea to start "fixing" an electrical appliance if you know nothing about circuits, but there's nothing to stop you from taking that item in to get repaired. Shoes can get new soles, clothing can be patched, socks can be darned if you take the time.

This part also applies to empty yogurt containers, cardboard boxes, etc. These are



The Back 40

Organic foods are one of many that can cost more, but may be worth more as well.

all reusable and dirt cheap! There's a reason everyone uses cardboard boxes as tables and chairs when they first move in to a new place: it works really well! I'm not suggesting you become a pack-rat but plenty of stuff out there can be used multiple times for different purposes. We've all seen pictures of really cool furniture made of stuff which would otherwise have been trash, so next time you're bored (or procrastinating), see what you can do with the stuff around you.

Buy Organic and Fair trade. When you do buy something, take a few extra seconds to consider the impact you're having on not only the environment but also the global economy. Every time you buy something, you're essentially voicing your support for the way in which that item was made.

Child labour, mass deforestation, slavery, diamond wars can all be linked to our consumption. As a consumer, you are responsible for what you buy so do a little bit of research and make an educated decision. Yes fair trade, organic, "local" and other labels often mean that it's going to be more expensive but sometimes spending a little more is worth more (if it makes you feel better you can consider the extra to be like a donation to charity).

Hopefully this article has made you think a little about how and what you buy. So remember: consuming less and sharing with others saves you money, buying better quality goods may cost you more but it may have a better impact on the economy. Overall, be informed about the decisions that you make.

Counselling Services

THE IRON WARRIOR
NEWS BUREAU

Engineering at the University of Waterloo is a challenging experience, especially when finals are peeping their speckled heads through the windows, becoming a source of stress for many students. If you ever find yourself in need of assistance, whether it be studying tips, advice, or someone to listen, Counselling Services is located on the second floor of Needles Hall (NH 2080, uwaterloo.ca/counselling-services). There is also a location for Engineering in the First Year Office (CPH 1320, uwaterloo.ca/engineering/current-undergraduate-students/engineering-counselling).

Counselling Services is free and strictly confidential. No information shared with the counsellor will ever be released to anyone else without consent, except when required by law. It helps with ALL problems, including transition/adjust-

ment, depression, anxiety, family struggles, sexual abuse, eating disorders, roommate problems, relationship issues, grief, stress management, self esteem, AND academics. In fact, Counselling Services also provides workshops on study tactics, goal setting, and time management, though there are few available during Spring term, compared to Fall and

Winter.

They are particularly busy during the end of term, but appointments can still be made by calling either office. However, if it's been a term or more since you've visited a counsellor, or have never seen a counsellor before, you will need to meet with a member of the Client Assignment team first, which only occurs from 9AM-

11:30AM and 1PM-3:30PM, except on Tuesday mornings. Afterwards, scheduling an appointment with a counsellor may take anywhere from several days to several weeks.

Don't let that discourage you, though. The goal of scheduling at Counselling Services is to see as many people as soon as possible, about any topic.

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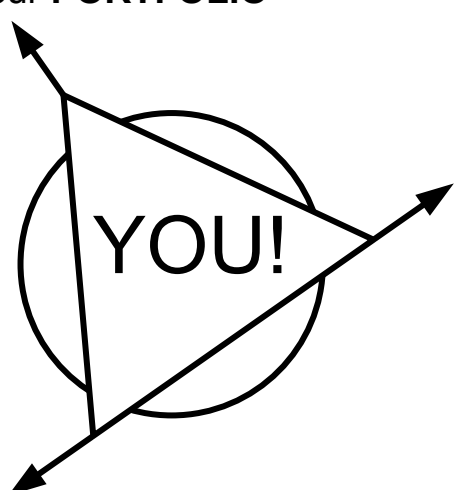
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OUYA: Should You Really be Jumping on the Bandwagon?



Hey everyone, for the first time in a number of months we actually have something new in the gaming industry, and it's attracting a lot of attention. The OUYA console has been praised and condemned across the internet, but the total pledge amount on Kickstarter keeps growing. So what is this console really about, and how can it stand a chance in the current gaming market?

In case people don't know about Kickstarter, it is an online sponsorship site allowing creative entrepreneurs to reach potential investors, but not the standard big corporate investors. The interesting part about Kickstarter is that anybody can be an investor, pledging as little as one dollar, and getting some kind of benefit as they pledge more. Now there has to be some kind of guarantee of return, so Kickstarter requires groups to set a pledge goal for both the amount and deadline. If people pledge the goal amount or more by the deadline then the group gets the money, but if they fail to reach the goal then the account is nullified and all pledges are cancelled. One of my favourites right now is "Auror's Tale" a fan-made web series with pretty good production values about a Harry Potter themed crime/supernatural drama set in New York.

So back to OUYA, which set an initial goal for \$950,000, and as of writing this they have 25 days to go and have raised \$4,673,201. This amazing number has actually been a very recent development, as I first heard about the OUYA about a week or two ago and they had not reached their goal at that point. As you move up the pledge levels you can get perks like reserving your username, pre-ordering an actual console, all the way up to the group flying you out for the console launch party. So what does OUYA actually involve? Basically, it is an Android based home gaming console, with the goal of making it cheap, accessible, easy to use and develop, while staying true to gaming roots, all selling for just \$95. The OUYA currently has parts and specifications finalized, and there is apparently a single working prototype. Using the Android operating system would allow for existing Android based apps to be ported to the system with relative ease – boosting your smartphone apps from a 4 inch screen to your HD TV.

How far along is the actual project you might be asking (and if you weren't asking then I'm just going to assume you did and tell you anyway)? Well, that is where things get a little sketchy, the final specs are finalized, but the actual form factor of the console is still under development, as are the user interface and online store. Really the only concrete proof of the console itself that you actually see on the Kickstarter page an image of half the controller, but even that is still being designed. So there is a single working prototype, the console hasn't actually finished industrial design, nor has the controller, and the operating system is only in the planning stages – so you would think it will be a while till we see the actual console. Nope, it is supposed to be shipped out in March of 2013 – yep, about eight months away. They sure are optimistic.

So why are people so excited about the OUYA? This really comes down to the approachability of the console and development. The console is actually designed to be easy to root. The group even boasts

that each console is effectively a development unit, allowing users to load their own programs and develop new code for the system. But is this really a benefit, or is this just going to lead to the undermining of their complete system when people just root the system to play games? The other big feature that the OUYA group is pushing is the controller I mentioned earlier, but this has its own issues. You know all those great controller based Android games people are playing? Oh wait, there aren't any, they're all touchscreen based. This could be a big problem, because even though the controller will have a touchpad built in there is still a push towards controller based games even though no one is developing them.

One of OUYA's other big features is that all games will be free to play – in some form or another. This is based on the free-to-play model used on popular games like Team Fortress 2, where the base game is free for anyone to play but the developer makes money off of micro-transactions for in-game items. The way that the OUYA team can make the claim that ALL games will be free-to-play is kind of sideways, in that they are specifying that every game must have some component free, so most will have some kind of demo to play before purchasing a license or subscription.

I will admit that I seriously considered pledging the \$95 to get a system at launch, but I don't think this system is really going to succeed, and the reason is power and scale. The OUYA is supposed to use the Tegra 3 quad-core processor, and contain 1GB of RAM and 8GB of internal flash memory, Wi-Fi, Bluetooth, and a USB port. With the system using standard parts like the Tegra 3 there is very little way that the company will be able to produce this system with a controller for only \$95, and it will basically be as powerful as a standard tablet or smartphone. While I think that mobile gaming is great, and I enjoy playing games on my smartphone, I really don't think that blowing that game up on an HD TV is going to be great.

The Tegra 3 processor is good as well, but there is now way you are going to actually be able to compete with a console like the Xbox 360 or PS3 with that kind of tech. If OUYA wants to take over the home gaming market they are going to have to take on the big three, and I don't think they can really do that. The basic Xbox 360 has a much better processor, graphics system, memory, and storage, for \$199. Now of course that is double the price, but the install base is immensely larger. Microsoft has also tried entering the indie development market through the XNA system, and the Xbox Live Indie Gaming Channel. Why would you take the time and put in the resources to develop a game for the OUYA when you could just as easily develop a game for Xbox 360, or the PC for even cheaper. Digital distribution has eliminated many of the costs that indie developers had prohibiting them from breaking into the market, but the OUYA does not remove any other barriers.

While developers are praising the OUYA for its innovative ideas no one has actually pledged to make any games. The preview trailers and description talk about Minecraft quite a bit, but it isn't guaranteed either – it is contingent on gamers showing that they want an OUYA version and the OUYA team proving that the system can handle it. As there is already an Android version of Minecraft this brings up serious questions about the ease of development for the system and the potential developer interest. If you can't play the existing An-

droid Minecraft app on the OUYA then how much does it cost to port it, and why would a developer go through the trouble of developing two versions of an Android app when one of them is for a relatively niche market? Wouldn't it be more worthwhile to develop Android and iOS versions and target most of the mobile market (sorry Blackberry)?

The OUYA team definitely has enough money now to finance the project, but only time will tell if it will actually be successful. So keep a lookout, and try to avoid jumping on the bandwagon on unproven tech. Kickstarter is a great platform for entrepreneurs to reach market, but there could be some duds. Good luck with exams, and Keep on Gaming.



OUYA

OUYA is the first home console to run games based off Android.

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Batwing, the Defender of Africa



Well, readers, it seems that this will be my final issue until the next summer so I thought I'd leave you with a hero that is an up-and-comer in the comic book universe. Recently, DC pulled off what we call a retcon (which basically resets continuity and modifies origin stories, and, sometimes, spits out new heroes); this brings us to Batwing. Batwing is a relatively unknown hero in the grand scheme of things at the moment but his interesting comic series that is currently on going does the impossible of bringing a Batman-type character closer to a real world setting. So, here is the defender of Africa, the offspring of the Bat, the fearless crusader David Zamvimbibetter known as Batwing.

The interesting thing about David is that his origin is grittier and sadder than most. He is tortured a lot like Batman but in a significantly different way. When David was a child, his parents died of the AIDS virus after which he along with his brother, Issac, were put into an orphanage. They were soon kidnapped in a raid by the Army of Dawn, a fictional African guerrilla army, and drafted into the ranks. David and Issac began to become fearless child soldiers known for their stealthy tactics, ability to carry out complex and sensitive missions, and their natural ability to fight. They soon became known as

the Dragonflies and were drafted into the elite ranks of General Keita, the leader of the Army of Dawn. With the help of the Dragonflies, General Keita and the Army of Dawn were soon becoming the strongest guerilla army in Africa. To eliminate the competition and secure dominance over their territory, the Dragonflies were tasked with killing a man named Okuru, the rival army leader to General Keita. The boys agreed to slit Okuru's throat and sneak out but Keita wanted to burn the entire village down to ensure Okuru's death. However, the boys refused to kill innocent women and children; as a result, David fires his rifle off to alert Okuru's troops thereby forcing the General and the boys to retreat. General Keita begins to savagely beat David until Issac saves him by smashing a rock over Keita's head. Keita, in retaliation, slices Issac with his machete many times before throwing him over a cliff. David, at this time, retreated and ran far away in an effort to escape. Later that night, David returns to The Army of Dawn's base and drugs Keita and then takes him back to the outskirts of Okuru's camp site. Here, he tells Keita that he will no longer be a murderer in his senseless war and says that he will not kill him but Okuru will; he then fires off his rifle and flees while Okuru's men close in. David eventually ends up at an Orphanage where he meets Matu, his adviser and soon-to-be father figure. As David grows up, he becomes a police officer where he begins to take a stand against corruption within the police force. David becomes a silent crime

fighter at night where he eventually runs into Batman who has heard of his exploits as a crime fighter. Batman asks David to join his Batman Inc. initiative to create a Batman in every country to which David agrees. He gives David an advanced suit of armor, funding, equipment to create a base, and some advanced training in martial arts. Soon, David becomes known as the Batwing and a shining symbol of the force of good in Africa.

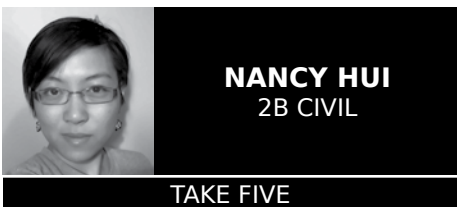
Let's observe what Batwing is accomplishing here; he is, in essence, a very heavily inspired hero of the Batman but with enough twist to stand on his own. He represents something that we all want, someone who will take a stand in the name of the people and good. It's interesting because he is put into the real-world situation of rampant corruption in the Democratic Republic of Congo thereby making his origin more believable than Batman's. In Batman's case, here's a rich kid whose parents are gunned down after which he just gets up and says "Ya know what. I'm gonna go learn every martial art and become a god amongst men and then take back the city my parents fought and died for." No, David was a freaking child soldier whose only crime was being born in a country where corruption runs wild. He was forced to kill and was rewarded when he did; even so, he still chose to take the higher path. I could go on and on about whom he has teamed up with or what powers/gizmos he has but what's the real point in that? A hero shouldn't be defined by powers alone (although, I will admit, they exponentially increase their

awesome factors) but by the core contents of what Batwing represents. A hero where one is truly needed.

Batwing has his own fair share of villains and is part of a couple of pretty big superhero teams, but he doesn't let those things make him lose sight over what is truly important to him: Africa. To Batwing, Africa is everything; it's his home, where he was loved, where he was tortured, where he will fight, and, eventually, where he will die. He knows this in addition to knowing that the people will turn on him if that becomes the easier choice; he also knows that he gives the people hope that, one day the evil that plagues them will be destroyed. He knows that what he is doing is completely insane and suicidal even with the Bat-suit which, may I remind you, began before he had the gadgets.

There's not much more I can really say about Batwing without spoiling his character, so I recommend that anyone who reads this to go out and buy one of his comics and see how amazing this character is as he is more than just ink and paper. This character stands a chance to be something more; he just needs the support. Whether he will have the impact of heroes like John Stewart, or Northstar, remains moot. Those who think that comics are just stupid and that there is no way for Batwing's comic to do some good in our world are just ignorant because stranger things have happened. But this writer, nay this true believer, thinks that this comic can become a symbol of hope in our world.

Curse Your Sudden But Inevitable Betrayal



Photos from IMDB. All rights belong to respective studios.

The moment of the realization of betrayal is one of the most powerful scenes in fiction. For a hero to come to the conclusion that their trusted friend, lover, or advisor has been in enemy hands all along? Tough titties, man.

A great betrayal scene is one that results after a lot of buildup, emotional tension, indecision and perhaps a generous dash of black humour in a cruel twist of fate. This is a collection of my favourite betrayals in film.

Casino Royale (2006)

A newly-minted Agent 007 (Daniel Craig) is assigned to bankrupt Le Chiffre, banker and terrorist financier, in a high-stakes game of Texas Hold-Em. This being a Bond movie, the stakes are higher than 007 realizes.

Both rougher and leaner than its decades-old predecessors, the 2006 Bond reboot makes good use of the Blond Bond as a man who wastes few words and fewer actions. The high-tech gadgets and sexy hijinks are abandoned in favour of a steel-eyed, cynical look at the world.

The moment of betrayal is unexpected because you'd think that *Casino Royale* had run its course by the time Bond is recuperating on a beach, or the gondola, or simply in the arms of Vesper Lynd (Eva Green). But nope. The final betrayal is as heartbreaking as Bond's terse words to M at the end of the movie.

Indiana Jones and the Last Crusade (1989)

Indiana Jones (Harrison Ford) and his father, Henry Jones Sr. (Sean Connery)

search for the Holy Grail, while pursued by Nazis.

It is difficult to judge an *Indiana Jones* movie without considering its worth relative to its predecessors. In the grand order of things, *The Last Crusade* is at least equal to *Raiders of the Lost Ark*. Both of them are better than *Temple of Doom*, which is better than *Kingdom of the Crystal Skull*. But I digress. Chronologically, *Last Crusade* takes place almost directly after *Raiders of the Lost Ark*. It is the story of a father and son, mysterious hand-drawn maps, faith, and the cliché that the journey is worth more than the destination. It is my personal favourite of the series.

The moment of betrayal is uniquely funny and believable because of the casting of Harrison Ford and Sean Connery, who have both held the title of Sexiest Man Alive and won the American Film Institute lifetime award. Mmm.

Hot Fuzz (2007)

Sergeant Nicholas Angel (Simon Pegg) is reassigned to a sleepy rural hamlet after his superior performance is making the rest of the London police "look bad".

The first two thirds of this film is ultimately a setup for half an hour of call-backs, brick jokes, and ass-kicking. It is a lovely, lovely second installment in Simon Pegg and Nick Frost's *Blood and Ice Cream* trilogy, the first one being *Shaun of the Dead*. In any case, Pegg and Frost play off each other like natural-born buddy cops. It also helps that Pegg's love interest in the film was written out and many of the lines given to Frost. This leads to a notable scene in which Butterball (Frost)

offers to help Sergeant Angel "unwind"... by watching buddy cop films together.

Several red herrings and cornettos into the movie, Sergeant Angel's betrayal by nearly everybody is assisted by an appropriately sombre black hooded robes, a graveyard, and stabbings. Full points for overwrought comedic value, and full points for symbolism.

The Assassination of a High School President (2008)

His name is Bobby Funke (Reece Thompson), and he writes for the school paper. Unfortunately he's never actually completed an article, so the only assignment he scores is an interview with the school council president, an investigation that culminates with the discovery of piles of stolen SATs in the president's locker. Funke becomes an instant celebrity, wins the heart of the local it-girl (Mischa Barton), and is accepted to a college summer writing program. Alas, all good things come to an end and soon he is fighting to clear his name and find the truth behind his own story.

This is possibly my favourite high school movie/mystery/noir movie. Mischa Barton and Reece Thompson were captivating, and Bruce Willis as the school principal was very intense. The interior detective monologues were excellent. Although the Eureka montage leading to the conclusion of the plot was a little thin, I enjoyed it anyways.

The moment of betrayal is bitter enough, but when it turns out that the girl you love is taking an incestuous bubble bath without you, that's really the cherry on top of

a long, hard day. So when the time comes for you to choose truth or freedom, I hope you pick the right one.

The Truman Show (1998)

Truman Burbank (Jim Carrey) has unknowingly lived his whole life inside a huge dome, while his every waking and sleeping moment has been scripted, filmed, and aired for millions of viewers around the globe. But Truman has always had the nagging sensation that something is wrong, and when his attempts to leave his hometown are thwarted by bus accident, traffic jam, and nuclear meltdown, it only confirms his suspicions that something is horribly, horribly wrong.

The Truman Show is one of the most successful, beautiful applications of a high-concept idea, up there with Groundhog Day. Through a highly stylized scenario, it reveals small truths about the human condition - free will, existentialism, and reality television. Jim Carrey's performance is simple and hopeful. It is also very funny as he edges towards the precipice of sanity, eventually threatening his "wife" with a kitchen multi-tool.

So your friends hate you, your lover cheated on you, and your neighbourhood has been trying to drive you off the deep end ever since you arrived. You can still take solace in the fact that the stars and the moon and the sun will never turn dark on you, nor will the nourishing waters of the earth attempt to drown you, right? Apparently not. Truman's betrayal by Cristof, the show's creator, has had thirty years in the making. But Truman takes his betrayal with an enviable grace and recovery.

Point Vs. Counterpoint

Should FOC Accept Sponsorships From Defence Contractors?

POINT

BROCK KOPP
3T MECHATRONICS

The views and opinions expressed in this article are my personal opinions and do not reflect opinions of the Federation Orientation Committee, the Faculty of Engineering or the University of Waterloo as a whole.

Year after year, our faculty rises above the status quo and runs a truly amazing Orientation Week that introduces and transitions incoming frosh into university life. Every year, Engineering Orientation solicits sponsorship from companies in a wide variety of industries in order to cover the costs of running Orientation Week. While we receive adequate funding to cover the costs of the week through student fees, sponsorship funds are what allow us to plan some of the most exciting and unique events that we are known for. Potential sponsors are carefully screened by both the Federation Orientation Committee and the University to assure that their presence will not negatively affect the orientation experience for incoming students.

As a result, companies who promote alcohol, smoking and other industries deemed inappropriate by the University are not allowed to sponsor the week. This screening is in place to assure that incoming frosh are not negatively influenced by the presence of these companies on campus. I don't believe that anyone reading this believes that we should be promoting cigarettes to 6000 eighteen year-olds who are living on their own for (most likely) the first time in their lives. No matter whether they are from Mississauga or Japan, frosh have just arrived in a completely foreign environment and are especially susceptible to influence as they adjust to their new home. But there is no conclusive evidence, nor even hearsay that I am aware of, which indicates that the presence of a company related to the defence industry will in any way promote inappropriate lifestyle choices by students. A defence company's logo on the back of a t-shirt is no more likely to cause a student to make a bad choice than the logo of a bakery.

While, I have no intention of debating the ethics of war today, I will immediately concede that wars cause immeasurable damage and harm which has a ripple effect across the world. It is not the companies who developed the weapons who are responsible for the damage, but rather the people involved. As long as humans have existed on this earth, there has been war. This is not a result of large multinational companies, but rather simply human nature. If every modern weapon were removed magically for the earth, would people stop getting hurt? Would people cease to fight? To kill? No. The defence industry produces tools, and nothing more. I apolo-

gize if I seem insensitive in the following comparisons, as it is in no way an attempt to trivialize war, but for those who disagree with me, I ask you:

- Do you blame the stationary industry when you fail an exam?
- Do you blame the auto industry when a distracted driver gets in an accident?
- Do you blame Cuisinart (who make kitchen knives) when someone gets stabbed?

The answer is no. You don't blame these companies, because they only supplied the tools which were misused. The defence industry is no different; they simply make tools which are used to cause harm. But these same tools are used for so much good. It was RADAR, developed for the air force, which has become invaluable to the aviation industry. It was the military again who developed GPS which has revolutionized search and rescue operations around the world. These are just some of the examples of tools, developed by the defence industry, bettering lives around the world.

But I digress. How does the defence industry help incoming frosh? The simplest answer is employment. With over 10 billion in annual revenue and 90 000 employees across the country (Canadian Association of Defence and Security Industries), the defence industry is an important and integrated part of Canada's economy. I have personally worked in affiliation with the defence industry for 3 of my coop terms, and greatly benefited from the experience. While it was not exposure through Orientation Week that landed me these jobs, engaging companies in University activities is a sure-fire way to open their eyes to what Waterloo students can do. The greatest incentive for a company to sponsor orientation week is to gain exposure to the brightest students, and I believe we step up to the challenge year after year.

So what is it I've been trying to articulate for the past 700 words you ask? I believe that the benefits of opening the potential of Orientation Week sponsorship to the defence industry greatly outweigh any possible harm that it could do to our incoming students. The presence of these companies on campus won't cause students to smoke or drink any more than it will cause them to get into a fight. But what it can do is help us transition these students, and set them up to succeed in their next five to seven years here. It is for this reason that I believe that Orientation should continue to accept sponsorship from companies who can improve orientation week without compromising our new students.

If you disagree with me or have any comments, I invite you to contact me at brockkopp@gmail.com.

FILZAH NASIR
1B ENVIRONMENTAL

The most obvious argument against this issue is of course the one regarding morality. So I am calling upon the students and the orientation committee to put all other factors aside for a moment and simply consider this issue based upon ethics. Let's begin with a statement we can agree upon. War is wrong. War has and continues to result in the senseless deaths of millions of people around the world. Wars aid in erasing the sanctity of human life and create a society desensitized to bloodshed, weaponry, murder and other horrific acts of violence. A common adage is that "there are no winners in war." That of course is a false statement.

There are always winners in wars. Defence contractors in particular stand to make the greatest profit from wars. Defence contractors work directly with governments to provide them with methods of defence for their countries. This normally means weapons for the military. Imagine a country that relies upon a certain defence contractor for their defence needs. Imagine that this defence contractor also happens to sponsor Waterloo's Engineering Orientation. Now imagine the country that this defence contractor supplies breaks out into civil war. The country's defence needs of course increase exponentially and the resulting business for the defence contractor increases their profit margin exponentially as well. The defence contractor, in turn decides that an increased profit margin means they are able to provide more funding to Waterloo's Engineering Orientation. The increased funding means a better orientation week for incoming engineering students at the University.

Think about that for a minute. The quality of orientation week is directly related to the level of conflict and need for defence in the countries which provide business for defence contractors. In the simplest terms possible, more war means better orientation. Can we, as humans, be okay with that? Before we argue with facts and numbers, before we break into the semantics of the impacts we actually have we must first answer this question: Are we okay with being profiteers of war? Are we okay with benefiting from the deaths of humans?

Now, questions of morality aside there are a plethora of other reasons why the orientation committee needs to reconsider its choice of sponsors. Waterloo's particular sponsor is Raytheon, a defense contractor that made 90% of its US \$25 billion revenue through military contracts in 2007. In that same year Raytheon was the fifth largest defence contractor in the world. Raytheon is also a large employer of engineering co-op students. It seems the University has formed a partnership in which they receive sponsorship for orientation and employment for students. Raytheon in turn receives access to Waterloo students, trained in one of the world's best engineering programs. They find future employees. Everyone wins, except the students.

Engineers are supposed to solve problems and engineering education is supposed to provide students with the skills to accomplish this. Waterloo has often touted their belief in innovative approaches to problem solving. War, however, is the least innovative approach to problem solving possible. In fact one could argue that it is not problem solving at all but simply a reinforcement of the "might means right" philosophy using weapons. Yet, the University administration believes this is a

COUNTERPOINT

fitting industry to employ our co-op students. And co-op jobs often translate into permanent positions. Does this stand true with our self-touted reputation for innovation? Instead of engineering students using the skills they acquire at Waterloo to help solve the problems that cause war, they end up doing the exact opposite. They try to make war more profitable. Are a few thousand dollars in sponsorship money truly worth this?

The larger problem in this scenario is not that a few Waterloo graduates may one day work for a defence contractor. The problem is that education is only valuable if it is utilized for the betterment of the world. And by sending out the message that working for a defence contractor is suitable employment for Waterloo engineers, the University administration is unwittingly limiting the potential of its students. The University should expect more out of its graduates. Waterloo engineers should be working to reduce the need for defence contractors, working to reduce the problems that lead to war. Simply put, they should be solving problems, doing what engineers are supposed to be doing as opposed to complacently profiting from this industry.

But students are compliant. They do not question the orientation committee or the University administration for their partnership with Raytheon. And in doing so they do a huge disservice, not only to themselves, but to the world as a whole. Student movements are often instrumental in changing not only their university administration but public policy as well. In the sixties, the massive protests against the Vietnam War in the United States were a result of student movements. In a more recent example, student movements in Quebec have succeeded in not only drawing national attention to their concerns but a call for an election by opposition parties. Students have political power, and it can be used to create change.

So why aren't Waterloo students using this power? This may be an issue about just one orientation week sponsor, but it opens the door for a larger discussion about the lack of student engagement on the Waterloo campus. A few weeks ago I attended a local demonstration against the Conservative's budget bill and was disappointed in the lack of Waterloo students present. The number of Laurier students at the demonstration was significantly higher. Why? Perhaps we need to take a closer look at ourselves and question why this is so? Is our focus on being technologically innovative preventing our students from being engaged, responsible citizens? Is it possible for the campus to have both? We have to realize that unless we as students become more vocal about our concerns with decisions made by the people in power (i.e. orientation committees) we cannot expect to bring about change.

My first argument on this topic regarding morality. I asked everyone to consider the ethics of this debate. If we come to the conclusion that it is unethical to accept this sponsorship, students must be the main moral voice on campus. We must hold ourselves and our campus accountable to a higher level of ethics. The question posed for this debate asks whether the Federation Orientation Committee should accept sponsorships for defence contractors. But I would propose changing the topic to "Should STUDENTS ALLOW the Federation Orientation Committee to accept sponsorships from defence contractors?" Because students are the ones with the power to change it.



Mountain Vision

Raytheon's XOS 2 exoskeleton is one of its newest military robotics suits.

Spring 2012 Funding Decisions!



LAURIN BENSON
WEEF DIRECTOR

Well hello there reader. I see that you have tuned in for the final WEEF article, and boy do we have a lot in store for you!

First off, the Spring 2012 funding decisions have been made by our wonderful Funding Council and can be seen in the attached table. This term we had \$130,000 officially requested, and only \$60,000 to hand out. We were extremely happy to see such a large range of proposals this term. After two evenings of proposal presentations from all engineering areas, the Funding Council sat down to hash everything out. The council went through several rounds of debate (and dinner!) before reaching its final decision. The results were pretty fantastic. We were able to exactly reach the target Department-Student Teams funding split of 70%-30%; a first for this director's term. In addition, we were able to provide complete funding for half of the fourteen Department proposals. This type of full funding will have a very significant and immediate impact on the laboratory and hand-on aspects of UW undergraduate programming. Finally, a significant amount was allocated to student teams, so they can continue to design and innovate on behalf of UW Engineering. These allocations will not become official until voted upon by the WEEF Board of Director's on Monday, July 23, 2012.

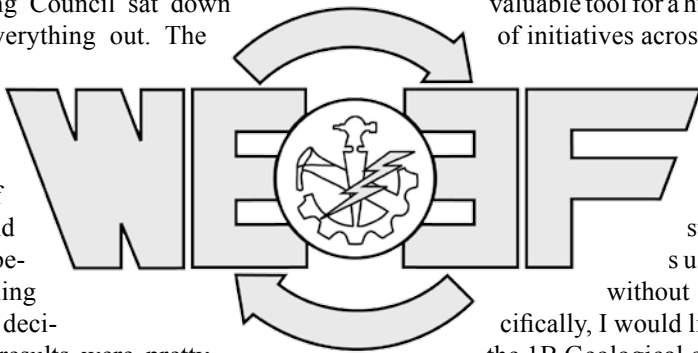
For those who did not get their desired funding this term, I encourage you to apply during Fall 2012, when more funding will be available. The proposal pool is different each term, which means that your proposal can still receive funding in the future.

I would like to thank all the members of the Funding Council for being diligent and willing to ask the hard questions this term. Thanks to your work, we can all be confident in the many destinations of our WEEF money.

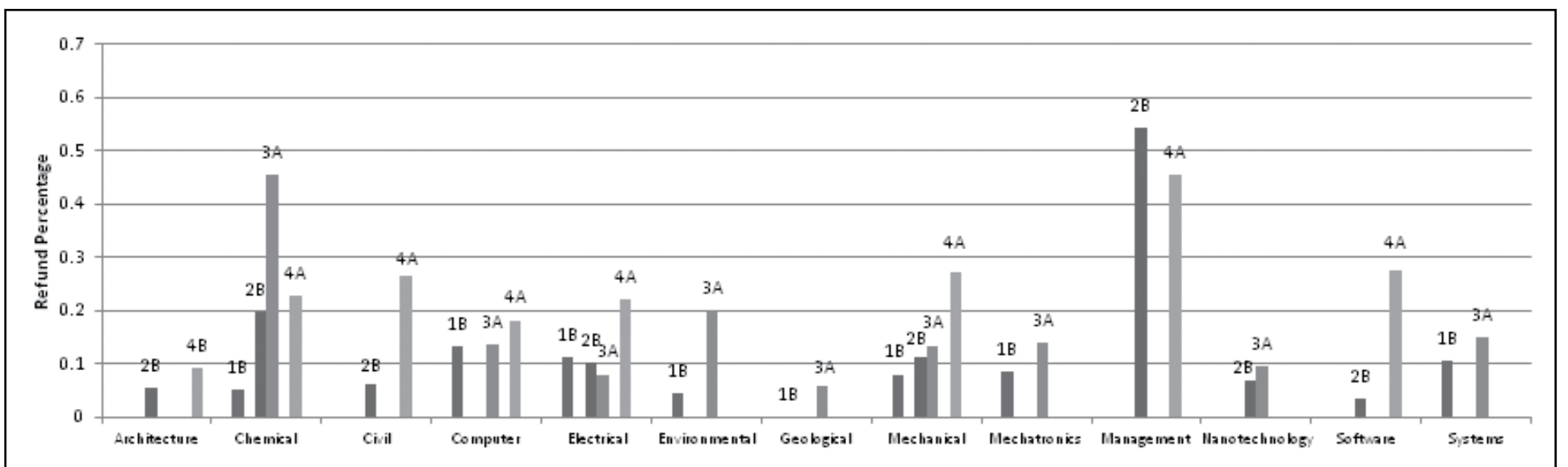
Secondly, the refund results are in, which you can also see in the accompanying figure. This term, 84.2% of enrolled, on-stream students contributed to WEEF through their Voluntary Student Contribution (VSC). And we thank you! Please take a look at the funding results to see how your contributions are being felt across campus. WEEF is an extremely valuable tool for a huge number of initiatives across UW engineering, and it would not be nearly as strong and successful without you! Specifically, I would like to thank the 1B Geological class for being the only class with an impressive 100% contribution rate this term. You rock! *pun alert*. For the other 15.8%, I'll meet you at the flagpole after the bell ...

The final order of business this term is a goodbye. Thank you for allowing me to have this amazing role for the past two terms. It has been a great experience being involved in WEEF, being exposed to all the great work going on at our university, and helping to keep the WEEF-mobile running smoothly. I would like to thank my assistant directors over the terms for making my job easy, and the past, present and future WEEF directors for keeping me in line. I wish Keegan all the best in his upcoming terms as WEEF Director, and remember: WEEF IS GOOD!

Questions or comments for WEEF? Visit weef.ca or email weef@uwaterloo.ca.



#	Proposal	Requested	Allocated
Departments			
Architecture			
279	7 x 12 Metal Cutting Bandsaw for Waterloo Ar	\$ 1,921.00	\$ 1,921.00
280	Architecture Computing and Media Digital SLR Camer	\$ 2,550.00	\$ 1,700.00
282	Architecture Computing and Media GoPro Cameras	\$ 665.00	\$ 283.00
Chemical Engineering			
236	Upgrading of Undergraduate Chemical Reactor Labs	\$ 10,850.00	\$ 7,230.00
Civil and Environmental Engineering			
242	Purchase of new laboratory balance (scale)	\$ 3,540.00	\$ 3,540.00
265	YSI Proplus Kit	\$ 4,948.00	\$ 4,948.00
Electrical and Computer Engineering			
258	E2-2363 Computer Upgrade	\$ 9,720.00	\$ 4,680.00
259	ECE Video Projector for Labs	\$ 1,350.00	\$ -
260	VM Server and Lab. Computer Memory Upgrades	\$ 3,170.00	\$ 3,170.00
262	Ece Lab Equipment For The Circuits And Devices Cou	\$ 8,000.00	\$ 2,000.00
264	ECE Keil ARM boards	\$ 6,800.00	\$ -
Nano			
263	PCB Solder/Rework Station	\$ 3,300.00	\$ 3,300.00
First Year Engineering Office			
266	Fuel Cell Project for 1A Mechanical & Mechatronics	\$ 2,000.00	\$ 2,000.00
Management Engineering			
248	Conveyor Modifications Proposal	\$ 7,100.00	\$ 7,100.00
Departments Total		\$ 65,914.00	\$41,872.00
Engineering Student Teams			
232	Waterloo Concrete Toboggan	\$ 2,365.00	\$ 1,400.00
233	Engineering Orientation 2012	\$ 548.00	\$ 548.00
234	UW Biomod Design Team	\$ 6,500.00	\$ 1,000.00
239	UW Alternative Fuels Team Spring 2012 Proposal	\$ 5,620.00	\$ 1,000.00
249	University Of Waterloo Clean Snowmobile Team	\$ 6,000.00	\$ 1,500.00
251	UW Robotics - Requesting Funds For Robotic Arm	\$ 4,438.00	\$ 1,300.00
252	UWMAV Platform Upgrade	\$ 5,150.00	\$ 1,500.00
257	Waterloo Engineering Rocketry Team	\$ 5,300.00	\$ 1,700.00
284	University of Waterloo WarBots	\$ 5,500.00	\$ 2,500.00
286	Aquaponics System Fund	\$ 1,066.00	\$ 955.00
287	UW Robotics Team WEEF Proposal S12	\$ 7,750.00	\$ 2,000.00
278	Midnight Sun Solar Rayce Car Team	\$ 4,000.00	\$ 1,500.00
256	University of Waterloo Entrepreneurship Society	\$ 1,035.00	\$ -
241	UW_NRG WEEF Proposal	\$ 2,000.00	\$ 1,000.00
292	TEDxUW	\$ 5,000.00	\$ -
Student Teams Total		\$ 62,272.00	\$17,903.00
Miscellaneous			
253	Funding for Fourth Year Design Project on Automate	\$ 4,157.00	\$ -
285	Architecture Computing and Media Plastic Coil Bind	\$ 210.00	\$ 210.00
Miscellaneous Total		\$ 4,367.00	\$ 210.00
Grand Total		\$ 132,553.00	\$59,985.00



The Sweet Hello, The Sad Goodbye, The New Beginning



ANDREW FISHER
VP INTERNAL

With the term winding down, there are still quite a few things which need to be wrapped up in my portfolio. I will hopefully be finishing the EngSoc event form system by the end of the term so that it could potentially be integrated in with the new wiki. I will be passing the completed form to the A-Soc executive so that it can hopefully be used in the fall term. In terms of the new wiki, most

static information on the website has been copied over and formatted. I will be in the process these next few weeks of updating the director portion of the wiki so that it can potentially be used by the new Winter 2013 directors.

There are still a few events being hosted this final week including the famous EngPlay, Rock Climbing, Cardboard Boat Racing and various charity events including float day, pancakes, and BBQ, to name a few. Don't forget that for every event you attend, your class can earn P**5 points. This is the time when 100 points can make or break a class, so be sure to rally your class and take

home the title of P**5 Champions! If your class has done anything together, whether it be studying, playing games or having a party, please submit photos of the event so we can give your class more points.

I would like to put a huge thank-you out there to all my directors who worked so hard this term to create such wonderful events. This was definitely a term of challenges, but we all got through them and I think it all worked out just fine. I want to also have a big shout-out for Student Life Commissioner AJ. He was a huge asset this term and I don't think I would have been able to do everything I

did without him.

Finally, I would like to take the opportunity to thank everyone for a great run as VP-Internal over these last 16 months. It has definitely been an eye-opening experience and I value every aspect, both good and bad. I wish Catherine Declaro all the best in taking over the VP-Internal position. She is a person of character and kindness and I definitely see her doing great things with the society over the next 16 months. If you have any feedback for me as to how the term went or for Catherine on how you want future terms to run, just email vpinternal.b@engsoc.uwaterloo.ca.

Messages from your Incoming Executive



YASSER AL-KHDER
INCOMING PRESIDENT

Hey! It's me again! Did you miss me? Yea, I didn't think so.

So I'm Yasser Al-Khder, current VP-External, and incoming President of Engineering Society 'B'. A little bit about me; I'm in 3A Mechatronics Engineering, I was born in Kuwait and raised in Dubai, and I love stand-up comedy, especially British stand-up comedians. If you want to know more about me just drop by the Engineering Society Office (CPH 1327) and I'll probably be there. You can also creep me on Facebook but I'd rather you don't.

So, instead of writing about my hobbies and my favourite 1990's rap artist (Dr. Dre of course), I decided to talk more about my goals for the next year and a half as President because I believe it would be more beneficial to you, dear reader.

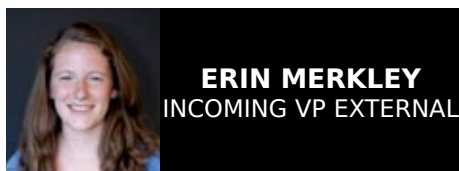


CATHERINE DECLARO
INCOMING VP INTERNAL

Hey everyone!

I hope everyone is enjoying the last few weeks we have before finals hit! I just wanted to take this time to introduce myself as your incoming VP Internal and let you know how stoked I am to work for you!

I was born in New Jersey, but have lived in Canada for nearly all my life. Growing up in Toronto was pretty awesome, I love how diverse it is as a city. Thanks to my love of exploring, I know Toronto like the back of my hand (at least I'd like to think so!). I have 2 younger brothers who I love dearly and love tak-



ERIN MERKLEY
INCOMING VP EXTERNAL

Hey there everyone!

I hope your last few weeks of school are going fantastic and that your summer has been wonderful. I'm going to be your VP External for the next 16 months and I'm super excited to work with you and for you! EXCLAMATION

I want the Engineering Society to cater to as many Engineering Students as possible and the first step towards accomplishing that is to gather as much feedback and listen to as many opinions as possible. This means that you will see me at some point next term asking for your opinion, whether it's about a specific issue or just asking you in general, "what could be better around here?". After that, I hope I will be able to understand the needs and wants of the engineering student body and act accordingly. Remember, you don't need to wait for me to ask for your opinion; you can drop by the Engineering Society Office at any time and talk to me or any of the executives. We'll be more than happy to listen.

Other goals that I wish to achieve along with my executive are reducing the quantity of events and increasing their quality, making council meetings more efficient, and improving representation to the administration and other parties, such as FedS.

That's all I have to say for now. Good luck with exams!

ing care of. I'm currently in 2B Mechanical Engineering and loving every second of it (Shoutout to ORGA5MECH)! I have a lot of interests out of school and the Engineering Society, but my big ones are ice cream, longboarding, music, and Marvel comics. I'm outgoing, friendly, and optimistic so don't be afraid to stop me and say hi!

Lastly, I'd like to encourage all of you to consider applying for a directorship position! It's a great way of getting involved, meeting new people, and bettering the Waterloo Engineering experience. If you have any questions, visit engsoc.uwaterloo.ca or visit the Orifice where someone will be more than happy to help you. I'm really hoping to do a great job as your VP Internal, so if there's anything you'd like to see, feel free to let me know!

MARK!

Just a little bit about myself, I'm from Smiths Falls, Ontario (we used to have a Hershey's factory), I love doing ridiculous things and I'm a crazy cat lady. In the summer I stay indoors most of the time because of my sensitive ginger skin and I've recently taken up the ukulele. I love ice cream, cheese, and chocolate milk, but I'm not allowed to eat them. On occasion, I like watching the sunset.

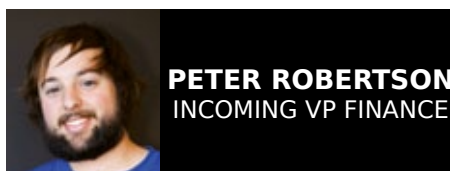
The next year is going to be stupendous and I can't wait to get started.



ORYSIA SOROKA & MEGAN MCNEIL
INCOMING VP
EDUCATION

Hello there, lovely engineering students! Our names are Orysia Soroka and Megan McNeil, and the only thing we enjoy more than TLC, wearing scarves, fuzzy/wool socks and chocolate ice cream is representing you as your new VP Education. Since nanotechnology switches streams, we are working as a team; Megan primarily for Winter 2013, and Orysia for Fall 2013. Although we are both the new incoming executives for the same position, we actually are two separate people (weird, we know), so we'll take some time to describe ourselves separately.

Message from Orysia: My name is Orysia, as in, "O-RISH-A could remember her name!" Get it? Maybe? Anyways, I am in my 2B term of Nanotechnology Engineering. I grew up in the Waterloo region, and just loved it so much that I decided not to leave Waterloo. I'm super excited about life, am always smiling and believe country music is the best thing to have happened to the world. In my spare time when I'm not in class, working on assignments or doing things within the Engineering Society, I enjoy playing sports such as softball and rugby and looking at wedding dresses or shop-



PETER ROBERTSON
INCOMING VP FINANCE

Why, hello there! Yes you. I'm speaking directly to you. Quit studying and read my words immediately! Peter here, your new B-Soc VP Finance, writing in the IW for the first (but definitely not the last) time. First I'd like to take a moment to thank the previous executive team ... Good. Now that you're done clapping for them, here's my story:

I hail from a city known as Burlington, a mere 45 minutes south-east of Waterloo and smack-dab between Niagara Falls/Stoney Creek/Hamilton and Oakville/Mississauga/Toronto. I grew up with two younger brothers and no, I haven't gotten rid of them yet. From a young age, I've always known I was destined for UW since both my parents graduated from this great institution in the mid-80s (my mom from CS, and my dad from Chem Eng) and here I am! You may not know me, but I'm here! Some of my favourite pass-times include pickup sports, jamming with some awesome people on bass, keys, guitar, and vocals. Also, outdoor

ping online. I always enjoy spending time with people, so if you ever see me around campus, feel free to stop me and say hi. I'm a very approachable person and would really appreciate any feedback you may have.

Message from Megan: Hey y'all! I'm Megan. I'm in 3A Systems Design Engineering and as a result I currently reside in the E5 penthouse. I am from the Great White North (ie. Ottawa, Ontario) where we eat things like beaver tails and spend a lot of time waiting for the bus in the freezing cold. One thing that you might want to know about me is that I am pretty much a 5 year old... proven by the fact that I enjoy colouring, nap time, and McDonalds Happy Meals WITH the toy. Otherwise, I love sports, and will probably end up failing my exams because of the Olympics. If you have any questions, talk to Orysia, because she is much perkier and cheerful than I am. If you really need to talk to me, I take bribes in the form of knock-knock jokes or anything punny. (hehe... see what I did there?)

Overall, we're very excited to work together as VP Education and represent the student body for everything academic related for the next 16 months. We have many ideas and goals, and would love to hear your ideas as well. Feel free to email us at bsoc.vped@gmail.com. See you around! Love, MOMS (Megan-Orysia-McNeil-Soroka).

recreative activities, some of which are very in-tents.

I went to my first EngSoc meeting in 1A and I've stuck around ever since. It makes me sad that you 2015's and 2016's didn't have the chance to experience the ridiculousness that went on back then ... candy flying everywhere and exec being impeached by accident. Hopefully, next term we can bring back that kind of exciting atmosphere while continuing the initiatives started by our current exec. If you're the kind of person who finds themselves caught up in assignments and projects all term and feels like school is dragging you down, try coming out to one of the many fun events EngSoc runs each term. Let off some steam by juggling smoke machines at TalEng, or dance the night away at Semi-Formal, and look for the return of the fantastic B**5 in the Winter! EngSoc has something for everyone and, despite popular opinion, we won't bite (except maybe Joe Dykstra, stay away from him).

Well, I'm off for now. I'm being enticed by Graeme lighting matches on his fly. Mary would either be laughing or yelling at us to pay the Double-Cheeky jar right now. Some things never change ...

Thoughts of an Outgoing EngSoc President

So Long, And Thanks For All The Fish-er, and Al-Khder, and Collins and Coutts



ALESSIA DANELON
PRESIDENT

So, this is my last exec report ever. 16 months, 24 executive meetings, 13 EngSoc meetings, 12 executive reports, 5 executives, a slew of events, an array of services, and a dash of personality, and you get yourself my term as President.

But this term was a lot more than that. The first thing I need to say is I had a phenomenal team to work with. I can't believe how lucky I was to work with Yasser Al-Khder, Alexandra Collins, Owen Coutts and Andrew Fisher. I was constantly surrounded by co-executives who were outstanding in their roles, brilliant with ideas, and, most importantly, supportive of me and each other in every initiative, executive meeting and endeavour we pursued. I hope the students and faculty were also able to see and appreciate the great work and all the time and effort they dedicated to making each student's experience here a better one. They put countless hours into their jobs, and this little article of thanks hardly does justice for the thanks they deserve.

I got to work closely with my executives, and I think that's why I can so easily appreciate all the work they did, but I know that our students are all hardworking and give this school a good name. I have mentioned

this previously, but throughout my term as President I have made class visits to collect feedback from students about their experience in Waterloo Engineering, but I also get to meet new people through their volunteer positions in EngSoc, at our events,

through our services, and various other mediums. If being President has given me one thing above all else, it was the opportunity to be exposed to all of the amazing people we have here in Engineering at Waterloo. I find our students can be quite modest about the extent of their ca-

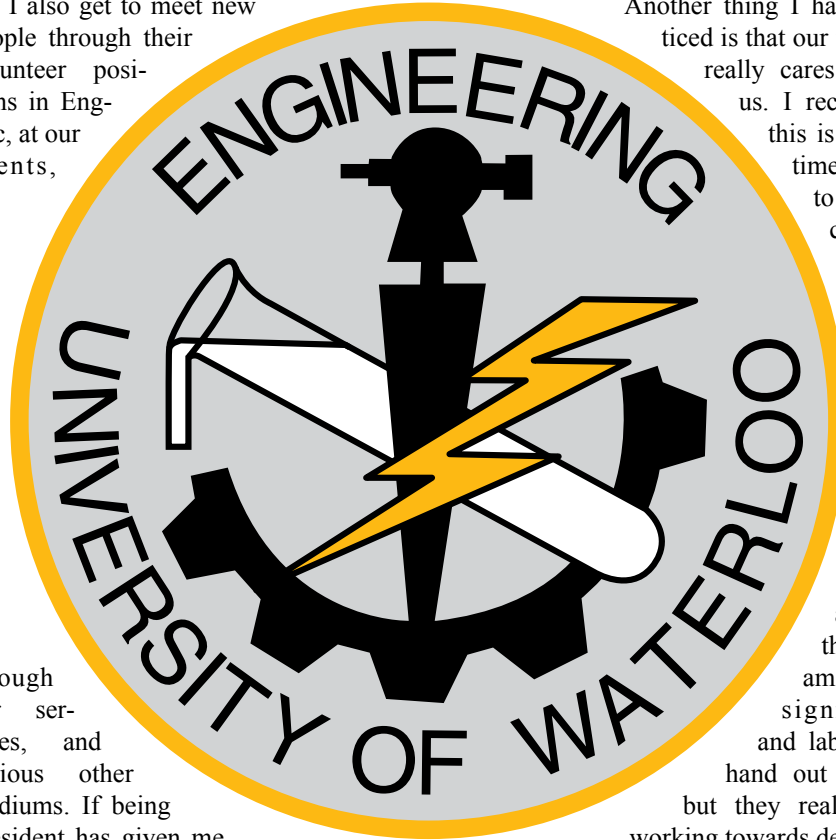
pabilities and experience. I have never had a class visit where the ideas were just mediocre, our students are just so creative and have such insight.

Another thing I have noticed is that our faculty really cares about us. I recognize this is sometimes hard to appreciate amidst the exams, assignments and labs they hand out to us, but they really are working towards developing each student into a better engineer, and person. I find the administrators that I have had the pleasure of working with don't just treat us as "students", they treat us like people with a lot of potential,

and that's really something that stands out from other schools. I have been so gifted to work with the dedicated people behind our education, and I really hope that you, the student reading this article, can recognize that.

So I leave you with this: the Engineering Society really cares about making your experience in Waterloo Engineering better, and I have been able to see this through working with all of the students and faculty that work within and in conjunction with EngSoc. Events are supposed to break up your days of homework, services are to help you excel in your pursuits, and representation is supposed to keep the value of your degree for years to come. If you find yourself asking "What does EngSoc do?", don't rhetorically throw the question out into your group of friends, ask someone involved in EngSoc. Ask the incoming President, Yasser Al-Khder. He, like many EngSoc involved people, cares about you, what you think, and your needs here. He's a determined individual, with an exceptional sensitivity for students' needs. He's going to do a great job, but only if you let him know what a "great job" means to you. I look forward to seeing the good work Yasser produces in his term. He will truly dedicate himself to your experience as a student, and I hope you can appreciate his work, along with the work of the other Engineering Society executives, commissioners, directors and staff.

So long, and thanks for all the fish.



Leaving our Exec Positions



ALEXANDRA COLLINS
VP FINANCE

All our desks are packed we're ready to go
We're standin' here outside the Orifice
We'd hate to fill our IW articles with
goodbye
But the term is endin' it's late July
The taxi's waitin' he's blowin' his horn
Already we're so lonesome we could die

So hug us and wave to us
Tell us you'll remember us
High five us like you've never done before
Cause we're leavin' our Exec Positions
Only Yasser will be back again
Oh BSoc, we hate to go

There's so many times we've let you down
So many times we've played around
We tell you now, it wasn't all just inside
jokes
Every event we go, we'll think of you

Every service we use, we'll thank you
When Yasser comes back, he'll miss us
too

So hug us and wave to us
Tell us you'll remember us
High five us like you've never done before
Cause we're leavin' our Exec Positions
Only Yasser will be back again
Oh BSoc, we hate to go

Ukulele Solo

Now the time has come to leave you
One more time let us lead you
After meeting 6 we'll be on our way
Dream about the new exec to come
When they'll be in charge but
One more time, we just want to say

So hug us and wave to us
Tell us you'll remember us
High five us like you've never done before
Cause we're leavin' our Exec Positions
Only Yasser will be back again
Oh BSoc, we hate to go

VP Education Advice



OWEN COUTTS
VP EDUCATION

Hi everyone, this is my last EngSoc report! Get excited for new and improved reports from our new VPs Education Megan McNeil and Orysia Soroka!

For my last report, I thought I would end on a lighter note. Here are Owen's top 10 (mostly serious) study tips for the average Engineering bunny!

1. Sleep enough and try to keep a normal schedule.
2. Shower, change your clothes, find time

to exercise and eat healthily.

3. Plan to have breaks in your studying, it helps with memory retention.
4. Believe in yourself! Have confidence!
5. Practise.
6. Practise some more.
7. Practise WITHOUT problem solutions.
8. Magically get a photographic memory.
9. Never leave an exam question blank; part marks FTW!
10. Leave a note for the markers if you see your final answer as ridiculous, it shows you are thinking!

Exams can be scary, but with preparation and a positive attitude, the exam season can be a refreshing break from the school term. Don't panic and I wish you success!

EngSoc B Executive

Alessia Danelon - President
Andrew Fisher - VP Internal
Yasser Al-Khder - VP External
Alexandra Collins - VP Finance
Owen Coutts - VP Education

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Upcoming Events Calendar							
Wednesday July 18 EngSoc Meeting 5:30 PM CPH 3607 Running Club 7:00 PM POETS Patio	Thursday July 19 Eng-Play AL 116 Float Day 12:00 PM outside CPH 2014 Movie Night 8:00 PM POETS	Friday July 20 Pubcrawl #5 Running Club 8:30 AM POETS Patio	Saturday July 21 LAN Party Eng-Play AL 116	Sunday July 22 Rock Climbing Grand River Rocks	Monday July 23 Cardboard Boat Racing 4:00 PM PAC pool Running Club 7:00 PM POETS Patio	Tuesday July 24 Pancake Breakfast 8:30 AM CPH foyer	Check out up-to-the-day event postings on the EngSoc website at engsoc.uwaterloo.ca 
Wednesday July 25 Charity BBQ Purpling for Charity Running Club 7:00 PM POETS Patio EOT-O 7:00 PM POETS	Thursday July 26 2016 Class Bonfire	Friday July 27 Running Club 8:30 AM POETS Patio	Saturday July 28	Sunday July 29	Monday July 30 Exams Begin Running Club 7:00 PM POETS Patio	Tuesday July 31 Exams	

Mole, Mid-placement, and the Team Ghana Retreat



JIMMY EHRMAN
2012 JUNIOR FELLOW

THE LONGER TRAIL

My name is Jimmy and I am one of the 2012 Junior Fellows from the University of Waterloo Engineers Without Borders Chapter. For the last couple months, I have been working on a project called Sustainable Land and Water Management under the Agricultural Extensions team in Northern Ghana. Below are recent thoughts and observations from my life overseas.

The past week was taken up by the Mid-placement and Team Ghana Retreats. The goals of which are to check-in on JFs, help them reflect on the first half of their placement, and rest and recover.

The Junior Fellowship is a difficult thing, so everyone was grateful to come together for 6 days of good food, good friends, and easy conversation. It was a well-earned break, and an essential time to reflect and re-evaluate our strategies, goals, and attitudes in our placements.

I'll begin with the fun stuff: story-telling!

All the JFs in Ghana were to meet up in Tamale last Tuesday, and set out for Mole early the next morning. After a day of travel, I got out stiff legged and sweaty into the city of Tamale. I sat at a great place called Guidipass, with a 3-story open-air bar to get a little work done, and try to connect with any other JFs already in Tamale. There I witnessed a waitress trying to herd pigeons into a glass enclosure. For what purpose I can only guess, however she seemed to have a lot of fun, despite losing the only ones she had managed to catch. Later I went to our guesthouse and met up with Naomi, who was fresh in from Nakpayili. Having nothing better to do, I tagged along while she ran some errands in Tamale. We chased down a livestock inputs dealer for an interview, found some carrots(!), and

ran into a few other JFs in town. It was great to run around a bit and share stories before joining the whole group. To be honest, I was nervous to meet up with everyone. Tongo rarely sees white people, and I had begun to get strangely nervous around them. It was kind of hilarious.

We met up with another JF, Sarah who lives in Tamale, and went to go check out her place. She has two rooms in a small house among a maze of mansions and government residences. We had a rare treat of nutella with crackers and fruit while speaking of our experiences and having a frank discussion about gender in Ghana. It was very refreshing, however I was dismayed to hear that Sarah seemed to only have negative experiences when discussing women's rights with Ghanaian men. I mentioned that we must be careful evaluating from a Western rights-based perspective to avoid cultural colonialism. It's really tricky and frustrating to balance this with the oppression of Ghanaian women.

That evening the whole group gathered at the guest house (called "Presby"). We talked late into the night, catching up and discussing our cultural successes.

The next morning we got up early to take a chartered tro to Mole. We departed on a four-hour, bumpy ride on the rough dirt road into Mole National Park. The ride quickly turned into a continuous forum for discussions surrounding intentionality, integration, and strategy. There were serious conversations as well.

The Mole Motel sits on a small ridge overlooking the park. A vast tract of rain forest stretches below, broken by sections of tall grass dotted with water holes. Within five minutes of arriving, we saw elephants. There were some ten or so elephants bathing in the closest water holes. Even though we must have been at least 500m away, they were massive. They are truly immense and magnificent animals.

We had the first of many excellent meals soon after. The Mole Motel sells a lot of Western food. I was really looking forward

to this. However the food, while very close, is not quite like Canadian food. There is a certain amount of Ghana, even in the burgers and spaghetti. Still, it was not TZ, so I was happy.

The rest of the day was centered on reflection and knowledge sharing. We spent a good amount of time presenting on our placements and checking in with each other on energy and motivation levels. The next evening, my favorite session took place. It was called the "Ghanalympics" and featured seven events: Fufu eating contest, Fashion Show, Picture Contest, Rap Battle, Story Contest, Accent Contest, and Azonto Dancing Challenge. The teams were organized around their sectors: Governance and Rural Infrastructure (GaRI), Agricultural Extension (AgEx), and Agricultural Value Chains (AVC). The competition was fierce, but fun.

The next day, we had free time to rest and recover before the tro ride back to Tamale. On Saturday we spent most of the day in team-specific sessions. We divided up into our sector groups (AgEx, GaRI, AVC) and discussed team strategy. The sessions helped us put our work in context, and asked us how our work and progress are promoting the team and it's knowledge of the extension sector. I also spent a sizable portion of the day combing Tamale for supplies for the up-and-coming Canada Day BBQ. Several of us hit Tamale around noon and bought several pounds of Beef, Guinea Fowl, veggies and nine liters of Fan Ice (the local ice cream).

On Canada Day we had Team Ghana Sessions, where all teams came together and discussed personal development strategies in our placements. We then wrapped up the retreat and headed out to the grill. The BBQ was haphazard but amazing. We roasted fowl, beef kabobs, sausages. I cut tonnes of veggies and at the end there was an ice cream bar complete with bananas, roasted pineapple, nuts and brownies. Almost immediately after, we waddled off to a nearby field to play ultimate frisbee.

No one threw up, but the first few minutes were rocky. It was a fantastic Canada Day, and a great way to connect to home and energize. I'm happy we were all together for Canada Day, to celebrate.

The next day we slowly said goodbyes as people drifted out of Presby at various times. I was sad to be leaving people, and at the time somehow demotivated to be going back to my often-frustrating job. However I had a coaching visit with Don before I left. We talked a lot about how I was feeling, the pace of the work, and its prospects for the future. After going over the details and laying out clearly how I felt about the work, we both decided our assumptions and strategy were not productive.

Moving forward, we brainstormed ways in which I could conduct my research independently of the MoFA office. Our resulting plan was to investigate the inner workings of the project, how knowledge and resources are handled, and what is failing, such that the project is so far behind in such an early stage. The conversation was really heartening, it gave me some hope for the coming weeks, and some concrete goals and plans to work towards. I got on the tro to Tongo (even more cramped this time) feeling much better about returning, and a lot more confident in my work.

All in all, the last week has given me a lot of time to reflect on my work and make plans to push it forward in the coming weeks. While I already miss all of the JFs and the retreat atmosphere, I'm excited at the prospect of finally getting some things done. I'm anxious to prove myself and provide high-quality analysis on this project.

Peace, love and happy trails!

Want to read more? Check out my blog for many more thoughts and updates at: thelongertrail.wordpress.com

More information on the Junior Fellowship program and Engineers Without Borders can be found at: www.ewb.ca

Meat Lovers

How our Everyday Diet is Creating Huge Repercussions



BRENDAN GENTILI
STRATEGY TEAM

It has grown to become a staple in the Canadian diet. From the side of bacon with our eggs for breakfast, to burgers on the BBQ for dinner, meat dominates almost every meal of the day; culminating in a world where we raise over 10 billion animals a year for consumption.

The amount of meat we consume today is a lot more than what our grandparents did at our age. We now support a diet where the amount of meat is double what it was in the 1950's. This huge increase in the demand for meat has caused radical changes in the farming industry and on our planet.

The image of a small town farmer working to produce food is no longer true for most operations. Due to the need for increased production, traditional, family owned farms have been transformed into corporate owned operations where animals are raised in high density areas. These concentrated animal feed operations (CAFOs) raise large groups of animals in small areas of land to increase profit margins. The results are detrimental for animals and humans alike.

Animals are more stressed in these environments and human laborers are paid low

wages to keep the cost of production low. In addition, the high corn content feed that is fed to the animals increases the amount of disease outbreaks like E.Coli. This is most common in cattle because they are accustomed to a largely grass-based diet and their stomachs cannot handle the large amount of starch from corn. But since corn is a cheap and largely subsidized commodity, it is still used in cattle feed because it lowers the cost of production. Decision-making based purely on profit margins is very common in corporate farming and also victimizes the environment.

The cost of raising over 10 billion animals each year for meat production has the greatest impact on the environment. Meat production causes more emissions than all of the world's transportation combined! In addition, beef production requires close to 100 times the amount of water that the same amount of vegetables would. This detrimental ecological footprint, as large as it is now, is only increasing as the world's population continues to grow.

Animals that are raised the traditional way, in large, grassed areas, offer a vastly better alternative. Raising animals without CAFOs creates a self-sustaining system if there is sufficient land to support the animals. Once the grass is eaten in one area, the animals migrate to another area and the grass begins to regrow with the help of nutrients from the animals' manure. Free range animals such as chickens are also

found to contain less saturated fat than chickens that don't have the same privileges. In fact, some athletes are vegetarians because of the health benefits and the increased energy that they have.

But, the raising of animals for consumption does still play an important role in our lives. There are essential nutrients that the human body cannot make that are only found in meat. The fertilizer from raising livestock is also essential to replace nutrients in soil that grow fruits and vegetables. Also, in some situations, meat is the only reliable food source. Being vegetarian also takes careful planning and a strong commitment to maintain a healthy lifestyle.

So, even though most of us cannot cut out meat entirely right now, knowledge is a great tool at our disposal. Knowing where your food comes from and rewarding small operations that raise animals the right way can improve your health and push sustainability forward.

What we choose to buy at the supermarket is no longer just a battle between unhealthy and nutritious by choosing to eat chips or carrots. The choices we make every weekend at the supermarket, now have huge implications for human rights, the environment, and animal rights. Choosing meat that is raised properly combined with a reduction of meat by a few portions in our meals could go a long way to improving overall health, helping the environment, and supporting sustainability.



Blogspot

Meat has become a larger staple of our diet.

Top Places to Meet People



WADE WILSON &
EDWARD BLAKE
3Z HANDSOMENESS

TOPZ (WITH A Z)

Meeting people is hard. O my brothers, we live in an age in which even two handsome columnists dressed in the height of fashion with real horrorshow jeggings, crocs, wife-beaters, and aviators indoors cannot find a delicious young lass. So what hope do you losers have? Well, the answer may surprise you: marginal. Yes, there are sexy singles in your area waiting to meet you: follow our advice and they'll be yours in no time, or not; we aren't psychic.

Community Events

Meeting sexy people starts with meeting people. Romance is sparked by the pheromones of dopamine and norepinephrine. So, where are you going to find people, dopamine, and norepinephrine? By playing games of chance and high-stakes! Now, if you want to be a Molly Money-waster you can go to Niagara or Las Vegas, but the secret is that there are local singles with shingles playing bingo at the nearby community center! Yes, just show up for a few games dressed like Rudolph Valentino and you'll be hearing "B-I-N-G-O-hhhh Baby".

Rideshare

Those of you who have gone on co-ops in strange lands and wanted to trek it home without paying an arm and a leg have like-

ly discovered Rideshare (and possibly a robbery scam). Rideshare is a program in which strangers carpool to a common destination and split the gas money to make the trip more affordable for all. Lately, a group of people have decided to make this program more local by picking up people walking on the sidewalk and offering them rides to their destinations. This community service gives people more bang for the buck by riding the bus: the "bangbus". Based on some limited proof-of-concept runs, passengers have hit it off romantically with an astonishing frequency. They shared laughs, secrets, and STIs (superterrific ideas).

Social Clubs

Finding people isn't hard; finding people who want to be found is what is hard. Often times, when trying to hit on people at a place like the dentist's office, your dentist will tell you that he's not interested so many times you'd almost be tempted to give up. Sometimes, you want to go where you can relax, unwind, and find people interested in meeting you. For those of you who are as of yet (somehow) unaware, there's a place around Waterloo in which people are just dying to meet you! At Roxanne's, there are tons of pretty girls who are super nice to you and love to dance. We've yet to get one to come home with us, but can only imagine that it's just a matter of time.

Grocery Stores

People aren't interested in people who are interested in them. This is a paradox as old as probably something. The ques-

tion remains, how to overcome it? You've got to seduce them without them knowing they're being seduced by nonchalantly demonstrating your prowess as a potential mate. One handy trick is to go to the grocery store and load up your kart with XXL condoms (so they know you have a big penis (this technique is not recommended for women)), energy drinks (so they know you like to party), milk (so they know you have strong bones), Imodium (so they know you party so hard you get incontinent), and sugar (because you always forget to buy sugar). Yes, push around that kart and you'll have to be fighting off all of the advances made at you (for which we recommend purchasing a rolling pin, like in the good ol' days).

Coffee Shops

Now, we know what you're thinking. "I already know how to land a babe or a hunk! I go to my local coffee shop and work on my MacBook in my vintage jeans to look super sensitive and artistic." That's not bad, if you're satisfied with being pedestrian, but we strive to be motorists, and push the envelope further. Try and freshen it up by taking your iMac with you next time you're getting a venti marble-mocha Frappuccino. They have a convenient handle which just screams portability: we even recommend the iMac as a portable music-playing device (you can keep a power source in your backpack). This way you can be a step above the posers and really appreciate the work. But if you're beyond the marginally hip, step up your game to Zach-Morris caliber with an Apple 2. It's vintage, it's hip, it's

Apple: how can you not meet people looking so cool?

Meet through Friends

Meeting through friends is a great way to find a date, but we believe that the ultimate technique is to have the people that know you best of all fix you up with a plan for Friday night, and every other night for the rest of your life. These people are, of course, your parents. What could be better than to have the parents of toddlers determine that they should marry? Some pretentious, Western-supremacists have the absurd notion that if two people are to spend their lives together, the decision should be left to the individuals as to whom they find appropriate. But, who are they to question the time-honoured tradition of picking spouses based on mutual conveniences for the extended families, social hierarchy, and antiquated tradition? Everything is relative! And to other people, it's perfectly true that the right and ethical way to approach lifelong commitment between individuals is to be primarily concerned with the wishes of those individuals' parents: they made them so they own them.

The University of Waterloo

Open your eyes! There are a multitude of well-adjusted, balanced-lifestyled, normal people with plenty of free time and mental stability all around you!

So, it is our sincere expectation that if you follow our advice, in no time, you'll be a regular bunch of Romeos and Juliets: caught in a beautiful state of true childish infatuation.

Grand River Brewery's Pugnacious



GRAEME SCOTT
3N CHEMICAL
ERIC EVENCHICK
3N ELECTRICAL

GETTING GOOD HEAD

Oh, hello there, it seems we have met again. Fancy that. I suppose it is time once more to engage in the time honoured tradition of drinking a beer followed by stern judgement. Note: this judgment may not always be good, as beer rarely leads to good judgement. Drink responsibly, or not, you're an adult.

This week, I had a new adventure in beer drinking in that I drank a beer that I had never had before. This is a somewhat regular occurrence, so maybe adventure was a little much, but it was an adventure nonetheless. For this week, I tried a fine brew called Pugnacious from the Grand River Brewery.

Grand River Brewery is set up in Cambridge, close to our lovely friends in Ar-

chitecture, producing fine craft beers year-round as well as a few seasonal beers such as Curmudgeon IPA and their Highballer Pumpkin Ale. Their beers are often on the lighter side (less than 5% alcohol by volume) but are generally quite flavourful. Pugnacious is a pale ale brewed by Grand River and is also the only beer on their website without an info page...like really there's nothing, just a picture of the bottle.

The word Pugnacious itself is defined as "inclined to quarrel or fight readily; quarrelsome; belligerent; combative. So, if you drink too much Pugnacious you will become pugnacious. Though the beer is only 4.5% so you'll have to commit volumetrically to achieve pugnaciousness.

Speaking of the word pugnacious, that is what first drew my attention to this lovely ale as it was on tap at Kickoff's and decided, based solely on the name, that I should probably inquire further. I have found that the interesting-sounding-named beers are almost always worth at least inquiring about. For instance, Flying Monkey brew-

ery has some of the most creatively named and also delicious selections (all of which are worth a try).

Now, having seen the name "Pugnacious" on the chalkboard at Kickoff's I was decidedly intrigued and, as such, made the decision to find out more about it. While blind tasting can sometimes be fun, it can also sometimes not be, so it's always a good idea to find out a bit about the beer before drinking it of which Bill's recommendations are almost always spot on.

Upon inquiry, I was informed that Pugnacious was "a pale ale from Grand River", and let me tell you, I was sold.

On delivery, the beer was a clear amber in colour with a light bubbly head that went down rather quickly. It smelt very sweet with nice hints of hoppy deliciousness I like so much in a good pale ale. This beer is definitely on the lighter side of some of the IPA's I enjoy and had a bit less bite to it than something like Mad Tom or Dead Elephant. The beer was sweet and crisp with a nice balance of hops in the aftertaste. Be-

ing on the lighter side, Pugnacious drinks very smoothly but is also quite flavourful and very malty and manages to be nice and light without losing any flavour.

On the whole, this beer was quite enjoyable and, while losing points for being a bit on the light side, was an all-around good, full-flavoured beer with a nice finish and a can-do attitude that really attracts the ladies. Overall, I give this beer...(DRUM-ROLLLLLLL)...3.75 Surly Bartenders out of 5 Surly Bartenders, or, on the thumbs up equivalency scale, 1.4 thumbs up. This is a great beer to enjoy after a long day of hard work, or a short day of not having done any work at all. For those who like sweeter and slightly bitter beers, this is a great summer drink.

And with that, we wrap up the term. Thank you all for reading our articles and we look forward to taking up the challenge of drinking and talking again next term.

Cheers,
Eric & Graeme



\$2 BUCK TUESDAYS
EVERY TUESDAY

\$10 PITCHERS
THURSDAYS BEFORE 11PM

PABST ATTACK
\$4.50/TALL CAN
MONDAY & WEDNESDAY - ALL DAY
FRIDAY & SATURDAY - BEFORE 11PM

DIRTY BURGER DAYS
\$2 BURGERS AND WINGS \$5.50/LB
MONDAY, TUESDAY, AND WEDNESDAY



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A BURGER AND A BEER FOR \$4 BUCKS!!
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PRESENT THIS COUPON
AT TIME OF ORDERING
LIMIT 1 COUPON PER PERSON. OFFER DOES NOT
INCLUDE APPLICABLE TAXES. NOT VALID IF
REPRODUCED, SOLD OR TRANSFERRED.

The Iron Crossword

With Apologies to the Author

STUART LINLEY
3A NANOTECHNOLOGY

1	2	3	4		5	6	7	8	9		10	11	12	13
14					15						16			
17					18						19			
20					21						22			
			23					24						
25	26	27		28		29	30		31		32	33	34	35
36			37		38			39		40				
41				42					43					
44					45					46				
47					48		49			50		51		
				52		53		54		55				
56	57	58	59				60	61			62	63	64	
65					66					67				
68					69					70				
71					72					73				

DOWN

- 1 Catch
- 2 Soy product
- 3 Regional steward
- 4 Complete
- 5 Pulp Fiction actor
- 6 Less than medium
- 7 State
- 8 Smarty pants gp.
- 9 Nebraskan river
- 10 They're out of this world
- 11 Tel _____
- 12 Dish (out)
- 13 Absent, as a soldier
- 21 Text or frag go with
- 22 Restore
- 25 Seat fillers
- 26 Grey
- 27 Expert (anagram)
- 29 Aug. follower
- 30 Struggle
- 32 Type of culture
- 33 Orchestral section
- 34 Italian politician
- 35 Morals
- 37 Cask, sometimes
- 39 Sightsee
- 42 Actress Witherspoon
- 43 Stuffing, perhaps
- 48 Of the back
- 50 Cherry or apple
- 53 Itsy-_____
- 55 twelfth digit of pi
- 56 Bruise
- 57 Salt Lake City locale
- 58 Melody
- 59 Skin
- 60 Alliance
- 61 Smile
- 62 Joy
- 63 Puke
- 64 Aqua

ACROSS

- 1 Goulash
- 5 Trudge
- 10 Zilch
- 14 Olive branch receiver
- 15 Wind
- 16 Promise
- 17 70's do
- 18 Stage
- 19 Farm tower
- 20 One's man's journey to only Lilliput?
- 23 Evil Woman gp.
- 24 Consumed
- 25 Swing
- 28 Ultimatum ender
- 31 Make possible
- 36 American legal pos.
- 38 Writing
- 40 Wader
- 41 A fruit causing immense ire?
- 44 Aboriginal dwelling
- 45 Real
- 46 Comparison, with as
- 47 Caught
- 49 Catch
- 51 British mil. group
- 52 Pine
- 54 Half windsor, e.g.
- 56 The top of a mountain, perhaps?
- 65 Small pouch
- 66 Ogle
- 67 Adhesive
- 68 Perch
- 69 Awake
- 70 Zeus' wife
- 71 You, biblically
- 72 French city
- 73 Kiss go with

Sudoku

#2012-10

JACOB TERRY
2B NANOTECHNOLOGY

Easy

	6			7	3	4	
2				6			8
		4					7
		8					3
	4						1
3					9		
7				3			
5				1			2
	1	3	9				5

Medium

		4	9				
	1				8	3	
	3			2			6
		9	6	8			7
8		7	9	2			
6			8				9
	7	5					4
				4	5		

Hard

		9	7				1
		6	3				8
8					7		
	3			6			4
		5			9		
1			2				3
		4					5
	7				1	4	
6					5	2	

Solutions for previous crosswords can be found on *The Iron Warrior's* website at iwarrior.uwaterloo.ca/distractions.

Frosh Issue Deadline:
Tuesday, July 31 at 6:00 PM
Send your submissions to:
iwarrior@gmail.uwaterloo.ca

THE IRON INQUISITION
Emily Gruber, 2B Nanotechnology

"What do you most want to see in the proposed Feds building?"



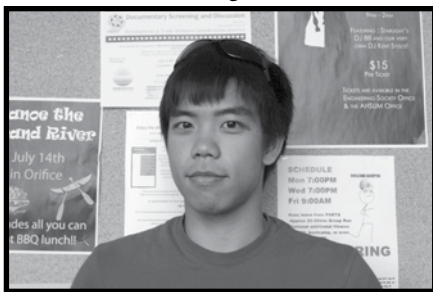
"Better food court! We're sick and tired of SLC and Timmies"
Fariah Rahman and Rebeea Malik,
1B Management



"Plug-ins and couches!"
Sean Dy, 4A Management



"An arcade. Bring back the Cove!"
Alexander Ip, Master's Nanotechnology



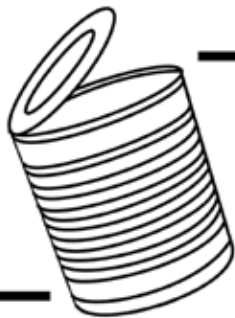
"More common areas for the students to hang out and be social."
Jeff Liu, 1B Mechatronics



"[whispered] A play structure."
Megan McNeil, 3A Systems Design



"Undergraduate lounges."
Yu Mei, 1B Mechatronics



THE GUIDE TO FINDING THE MASTER SWORD

YESTERDAY WAS TODAY, AND TODAY IS TOMORROW

Protesting Tips*Viva la revolution!*

If Albert Einstein was alive, I'd jump on that shit.

Movies You Have to See*Even better than Meatspin*

Imprint has a new website, looks like it's time for an upgrade.

Smokey the Bandit Returns*Oreos! iPads! Big Al!*

VP Education Resigns, Prompting Massive Protests



The way OrGan MOMS flips its hair gets me overwhelmed.

ANDERSON COOPER & APPLE JACKS 2NOTB VP ED

In a predictable turn of events this past week, the recently elected VP Education of Engineering Society "B" have resigned. This move, another chapter of a seemingly endless storyline, has left the Engineering Society continuing to search for someone to fill the role.

The two students sharing the role, Orysia Soroka and Megan McNeil, stated at the last executive meeting, "We thought it would be fun to make this some sort of record so, in the interest of getting into the books, we're out of here. Go team!" As they prepared to depart, the two let out a loud shriek and combined into Or-

Gan MOMS, a great pink demon who announced it was answering its calling to be a wedding planner before departing on a rainbow path to the sky, leaving puffy clouds and general confusion in its wake.

However, this enthusiasm was not shared by the Chief Returning Officer, Jon Martin. Jon has spent the entire term trying to find someone who can fill the role, only to see what looked like a tiresome success crumble away like the Quebec Bridge. Jon said, "I could really use a coffee and a hug. Does anyone have a coffee and a hug for a tired CRO?"

This move has also sparked a protest with members of B-Soc who, despite not having the motivation to simply run for the position and end the fray, have been protesting the resignation of the members,

chanting the word "ratify" repeatedly. The students have organized classroom lock-out and sit in on the POETS patio that will not likely see an end anytime soon. Students protesting have been seen wearing green squares. One protest organizer, who asked to remain anonymous, told our correspondents, "I don't really know what the colour means - I think some guy brought a big green blanket for the campout and so we just cut it up. It's also, like, the same colour of trees and frogs. You gotta protest the environment right? I don't actually know why I'm here." The protests have left some damage to the Douglas Wright Engineering Building, which is now under repairs despite the continued protests.

The fervor surrounding the VP Educa-

tion position has reached a fever pitch. In an attempt to extinguish the issue, the B-Soc Executive have released an open plea to the engineering student body to offer their application for the position. When asked if he should be approached with new candidates, Jon replied, "Yes! Please, please, please send in your platform. If you do I'll share my Star Wars Blu-ray boxed set with you." Until there is a resolution, the student protest will likely continue to rage on in irony.

OrGan MOMS has been rumored to still be lurking in the dark corners of the engineering district. The University of Waterloo Police Service have issued an open call for tips and are offering a UW laser gun as a reward for the capture of this creature.

UWAFFT Loose Goose Fuel

BRISTOL STOOL OP FECALTECHNOLOGY

Following the UW Alternative Fuels Team's success at the EcoCar2 challenge, UWAFFT's spinoff team, the UW Alternative Feces Fuels Team, is turning a crappy idea into a profitable product. For the past year, UWAFFT has been developing a new automotive fuel based on nitrogen-rich Canadian goose poop. The patented fuel, called "Loose Goose", can be harvested and processed for only a fraction of the cost of traditional fuels. The product is about to hit the market and UWAFFT is expected to flush all competitors down the drain.

It is being hailed as an environmental wonder because of the simple extraction and distillation process. Loose Goose was

invented by UWAFFT founder Mercedes LeMerde after constantly cleaning goose poop off the floor of the Student Design Teams Centre tracked in by students walking to campus. The odour hit her first with nausea and then with inspiration. "This material is so abundant in Waterloo that it's a shame we aren't innovating with it," explains LeMerde. "Every day we see geese walking out in front of cars as if to say that they've had enough with fossil fuels. And then they just sit there and move their bowels, hissing and screaming that they have the solution!"

LeMerde immediately went to work collecting samples with a rake and within an hour, her team had harvested two metric tonnes of goose turd without even covering most of the campus. The distillation process depends on how liquified the batch is

to begin with. Adapting processes from the olive oil industry, each batch is cold-pressed at 40 degrees Celsius to encourage energy-rich bacteria to flourish. Once the solids that can harm engines have been filtered out, the fuel is ready to go! The best part is that goose poop is so abundant in Waterloo that they don't have to keep geese captive, which keeps it cruelty-free.

The only glitch to work out is how to eliminate the unpleasant odour emitted when a car burns Loose Goose. When the fuel gets tested, especially when geese have eaten near the Plaza, their engines cause the entire campus to smell like manure. Fortunately, UWAFFT has procured sponsorship from Febreze, masters of odour-masking technology. Loose Goose may soon be available in flavours like "Bum-ble Berry Blast"

and "Chocolate Explosion".

Rumour has it that UWAFFT was approached last week by RIM stockholders, who were in town to sniff out new investment opportunities that won't give such shitty returns. Could the Blackberry 10 smartphone be replaced by the "BlackBerry Number Two" smartcar? Now that's an idea you can take to.

Loose Goose alternative fuel is such a desirable new product because, according to historical data, the annual volume of goose poop in Waterloo increases at a rate faster than Moore's Law. That's even better than renewable. Instead of letting it hit the fan and getting buried in it, why not turn it into a type of green you can put in your wallet? What's that smell? It's success UWAFFT-ing our way!

Letter from the Editor

The Tin Soldier Shows You How to Be a Pro Protester



APPLE JACKS
LVL 34 DEMON HUNTER

Hello minions, I'm glad you found our issue of The Tin Soldier at the back of this other paltry newspaper. In this issue, we show you how to start out a career as a professional protester.

1. Make yourself a sign

The defining feature of any protester is a giant picket-style sign, with a few words on it. Be sure to make the words short and simple, so that you and your fellow protesters can chant it like mindless zombies.

2. Start doing damage

It's not a protest without some window smashing! Take the nearest Imprint rack near you and give it a good ol' chuck. Now you're really getting into it! Bring all your friends for maximum carnage.

3. Hide yourself with a black mask

Well, you didn't think you'd get away with criminal activity without the Wat-Cops showing up, did you? Now, you need a mask so you can make it out undetected. If you planned ahead, you would have brought your ski mask along, but if you need a little bit of ingenuity to get you past the security cameras, take a really black page and wrap it around your face. This page will suffice, but only if you really rub it around your face for maximum adhesiveness.

4. Hide your friends too!

Why stop at yourself? Help a friend out and rub it in your friend's face too. Now you can both be master protesters!

Letter to the Editor

Nanos Can't Be Trusted

Re: About Nanos and The Iron Warrior

Dear EIC of The Tin Soldier,

We are taking over the world, look we are even putting our own spin into the eye witness account of how the nanos are taking over the world. You may think you are safe but it is only a matter of time before we start joining your ranks. As all good nanos know, we agglomerate and form better stronger materials so ... beware!

This is a response to the editorial published by The Iron (Nano) Warrior's Editorial from July 4. Although I would have sent the response to The Iron (Nano) Warrior, I'm afraid that their ranks have already been invaded by the scariest and most evil of all beings (*amazing and handsome*); nano students. Indeed, even their EICs seem to be nothing but a long chain of nano after nano after nano. In his Editorial, Jacob Terry writes:

"While it would be cool if we had planned something [the IW nano takeover] slyly, I can assure you that the real explanation for why nano students write so much is not quite as sinister."

Terry goes on to state that the only reasons there seem to be a lot of nanos in the IW organization is due to friendship and class loyalty (*ie. agglomeration*). I write to inform the world at large that I have been to these classes, I have seen past their innocent facade (*functionalized surfaces*) – nanos ARE planning on taking over the world. I can tell you that, even now, nanos everywhere are joining ranks, agglomerating and preparing for

world domination. For now you cannot see them (*they are small*) but soon we will begin to see the effects of their evil plans (*nano-structures*). You may be under the impression that the nano program is hard, however this is only because of the excessive amount of time the students spend in dark computer labs at late hours planning their world domination (*we are actually working on quantum physics*). Next time you see them in a dark lab at a late hour, don't believe their excuses and feel free to disturb their work with loud noises.

Although their toxicology course appears to be for the safety and benefit of others, DO NOT BE FOOLED (*it's for our safety and benefit, not yours*). This course is exclusively and entirely for the purpose of learning how to poison the environment around them (*so we can better learn how we can infiltrate the environment of course*). They even learn about bio-accumulation to enhance their abilities for invading your bodies with nasty substances. They are already performing preliminary testing on innocent creatures such as bunnies and mice.

While rumours have existed of other departments building their own world domination plans, indeed it was believed that Chemical Engineering Students Society (*secretly nano, we were invited to their lunch the other day*) was started exclusively for the purpose of invading the world with chemicals. Nothing is further from the truth, chemicals are not taking over the world and present everywhere however, nanos soon will be. No other de-

partment is a threat greater than the nano department. You could even say that the nanos are taking over other departments (*especially those of Chemical Engineers and Electrical Engineers*).

This is a call out to my fellow non-nanos: keep an eye on these little nanos (*a little redundant don't you think*). They provide small amounts of short range order, but lack enough flexibility in schedule to provide long range order (*in polymers flexibility is actually a result of the lack on long range order*). (*engulf*) The best way to deal with them is to not let them build up to the point where they completely engulf your team (*engulf*), as when that happens as it inevitably will, your group will experience a mass exodus every term when they leave for co-op for eight months.

The only reason the QNC took so long to build was because an evil banana lair is being built beneath it simultaneously (*What? We needed better foundation, like Bruce Wayne when he rebuilt Wayne manor*). Workers also disappeared mysteriously, as they are being consumed by a nano-engineered monkey. This might be due to their yellow hard hats which make them resemble bananas. Frosh are in lots of trouble if they trespass onto the grounds.

In short, STAY AWAY FROM THE NANOS. They swallow you up and then, before you know it you become one of them. Be afraid.

-- A non-nano (I think) (*and a nano*).

THE TIN SOLDIER

Android Fanboys
Need Not Apply

The Prime Evil
Apple Jacks

The Lesser Evils
Editor Supremo
Winner of the FOC-Exec-EIC Triathlon

Must Read All the Articles
Banana Baggins
Tony Montana
Philip Pant

Head of Propaganda
Curious Emily

Puts Words Next to Pictures
Surul, I remember your name!
Vaginarific

Circles Campus with Papers
Lucky #13

**Speaks to the Plebeians
on the Interwebs**
Nan Huang Huang Huang Huang

Emotional Core Maintenance
Anderson Cooper
Mexican Piledriver

The Sadistic Ones That Return
Bristol Stool
Buythe Cheaper Dildo
Deadpool
Elliot Cass
Leafy Fefe
The Comedian

Freelance Grunts
Despot of Crossword Creation
Kit Cat
Queen of Cash Flow, Yellow Stickers
OrGan MOMS
Sadie and Massy
Smokey the Bandit
The Second New Male Exec
The Fifth Exec
Yasser Al-Back Again

Eventual Victim
Jon Jacob Jingleheimer Schmidt

BIG BROTHER'S CIRCLE
You Better Get More Frosh
Miz' Taken

They Come to Meetings At Least
Boob Cilantro
The Eager 2B Civil

We Like Them Too
Alicia Danellun
Angelica Stewie

The Tin Soldier is not a forum for thought-provoking and informative articles, and has no association whatsoever with the Society of the Travelling Pants. Views expressed in The Tin Soldier are not those of the authors and do not necessarily reflect the opinions of Chuck Norris.

The Tin Soldier encourages submissions from students, faculty and members of the Non-Existent Action Committee. Submissions should reflect the concerns and intellectual standards of the The Society of the Travelling Pants in general. The author's name and phone number should be included, except if they are non-existent. This information may or may not be posted on our website.

All submissions, unless otherwise stated, become the property of The Tin Soldier, which reserves the right to refuse publication of material which it deems too suitable. However we're so desperate for content that we'll likely take it (but we might just send it to Imprint). The Tin Soldier also reserves the right to edit grammar, spelling and text that do not meet university standards, but engineers suck at english so it's a low standard.

Mail should be addressed to PJ Katie, c/o YTV Canada, P.O.Box 7500, Paris, Ontario, N2L 3W7. We do not currently have a phone, however you may redirect all inquiries to Kickoff's, as we're likely there. We don't have a fax number as no one uses faxes anymore.

Coming to the Small Screen



Hello, film-fans! This week I'll be reviewing more movies from the emerging medium of the internet. This week I'll be looking at three pictures: a dark police drama, a fun buddy flick, and an ambitious work of classicism.

F*** the Police

This gritty crime drama is really ambitious. A policewoman, played by Sasha Grey (whom I personally consider to be the next Meryl Streep), is on the beat assigned to infiltrate a gang. The inner struggle here is played beautifully by our heroine: she knows that these men have concealed and loaded weapons, and that they wouldn't hesitate to unload their ar-

senal on a cop but she embraces it. She uses the nobility of the thin blue line as the rope with which she ties her noose: driven by the things she's seen, the dark cavities of society which she has explored in those she's encountered on the job and in herself. Ms. Grey gives a performance that is so genuine and honest in its stark realism, a truly naked performance which is so touching that you'd have to be a robot to not be reaching for tissues. Her co-stars, unfortunately, are unable to hold a candle to her and their performances appear rigid and hard, contrasted by the scene-stealing Sasha. I would give "F*** the Police" 3.5 stars out of 5.

Lemon Stealing Horse

Now normally, I'm not a fan of popcorn-flicks. Most studios see the genre of fun family films as a simple cash-cow and put much more effort in marketing and tie-ins than they do the picture. But "Lemon Stealing Horse" really breaks the mold. In

this wacky tale a husband and wife buy a lemon grove, only to find a pugnacious and petulant young lass snatching their fruit! However, seeing potential in this rough-around-the-edges gal, the husband, played by James Deen, decides to let her pay off the debt. Through a series of trials and tribulations, the unlikely duo learns what to do when life gives you lemons. Actress Joanna Angel plays her part pretty well, but at times she can be unconvincing. For instance, given just how unapologetic she appears at first, it doesn't take much to get her on her knees (apologizing). Thespian James Deen is remarkable as always. Overall, a great film for what it strives to be: I give "Lemon Stealing Horse" 3 stars out of 5.

Ashlynn Gets a Pizza

This is one for the real die-hards out there. As Christopher Nolan has done with Film Noir in his Dark Knight trilogy, as Academy-Award winning "The Artist" did

with silent-era films, "Ashlynn Gets a Pizza" does with classic 1970's cinema. Often seen as a golden age, the 70s were a time before the gimmicks and high-definition, when it really was about the art. Here, we see a director's loving tribute to this iconic time in a movie that is faithful to the soul of the genre, without being derivative or cliché. The short film starts with a Fred Astaire-style male lead working at a restaurant which is a clear nod to Hooper's "Night-hawks". While on a delivery to the home of our femme fatale (played by Ashlynn Brooke), our hero is driven to share a moment of vulnerability with this total stranger: to open up and deliver not just a pizza, but himself. A truly moving piece which forces the viewer to question the nihilistically banal interactions of our daily lives and to admire the man who says "no more" in a work that's so classically Americana it would make Norman Rockwell blush. "Ashlynn Gets a Pizza" gets my glowing recommendation. 5 out of 5 stars.

How to Save Money on SEX TOYS



Disclaimer: None of the following is actually advocated or suggested by the author of this article. In fact, you could probably consider this to be a list of what NOT to do.

We all know these things are too expensive for the average starving student. But we've all got our priorities and, as engineering students, it's important to meet our basic needs. Luckily, there are plenty of cheap replacements for all those expensive

toys.

Firstly, it's cheaper to borrow than to buy. You can either choose to borrow items from the store and return them discreetly when you're done or try borrowing from your friends. No seriously, next time you're invited somewhere for a party, hop over to your friend's room and take a look around. Despite popular rumours to the contrary, STIs can't possibly be transmitted by using the same sex toy as someone else.

Remember that cleaning supplies are expensive so don't waste money on them, it would be silly to clean a sex toy before using it. Being too hygienic and removing bacteria is ridiculous (and bad for your health). You definitely don't need to check if any of the materials you are using are

toxic or are covered in pesticides.

Speaking of STIs, you shouldn't always believe what you read. You cannot possibly be infected by an STI through sexual intercourse. However, if you do feel the need to use protection, saran wrap or duct tape make great replacements and are far cheaper than condoms.

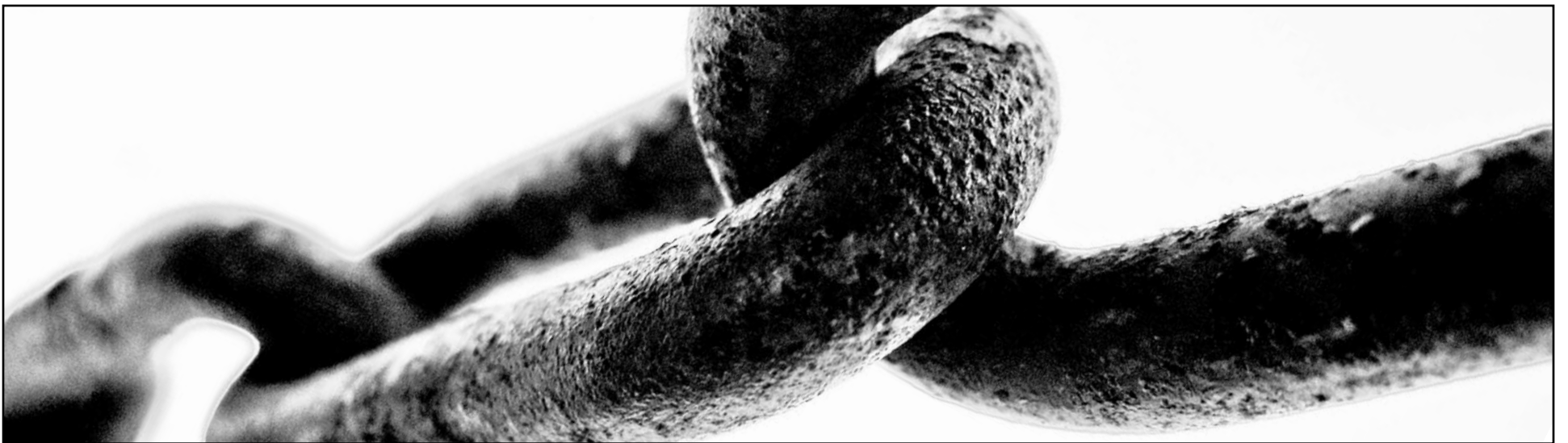
Vibrators are relatively easy to find anywhere; just use your phones, electric toothbrushes, razors, and laundry machines which make great replacements for cheap. You can also just borrow your lab's vortex mixer (so long as you return it the next day, you lab supervisor surely won't mind).

Although your mom always told you not to play with your food, many foods do have multiple uses. Bananas and cucumbers are

always popular with the ladies. Bacon grease makes great lube (and it's naturally flavoured) but remember to be patriotic and buy only the best Canadian Bacon. Watermelons can easily be transformed into a natural Fleshlight with a simple hole.

If you are willing to spend money, remember that leashes and whips can be found at your local pet store. If you're into S&M, Canadian Tire provides cheaper chains than the sex shop and is also stocked with wrenches (for all engineers), all kinds of clamps, and vacuum cleaners. Power drills are so wonderful you won't feel the pain until later.

Hopefully this article will help you on your way to having the most bang for your buck. Best of luck!



These chains are about to break from all you've heard, don't be scared, I ain't going no where ;)

Fifty Chains of Grey



Disclaimer: The following piece of fiction is only meant to parody E.L. James' popular novel Fifty Shades of Grey using a setting that is a bit closer to home. This in no way reflects the opinions of the Iron Warrior, the Engineering Society or the Engineering Federation Orientation Committee.

Looking in the mirror that morning, I became very aware of the futility of any attempt to clean myself up. In a couple of hours, I would be getting various challenges from people in chains, most of which would get very messy. I'd observed them

in the past and I can't say I was looking forward to it, and yet something was telling me something special was going to happen today.

I ran to the courtyard where the rest of my group was waiting. A chained man snarled at me, "You're late!" I knew I wasn't, but it was ingrained in my mind that disagreeing would only make them harder. I was instructed to get on my knees and demonstrate my regret. I immediately dropped to the ground and gave his black leather boots a good work-over. After a few minutes of hard rubbing, he was satisfied, and let me return to my group. As I returned to my group, a strange feeling came over me; a feeling I wasn't expecting: excitement. It was then I realized that I actually wanted to please him, and not just him, but all of them.

I returned to my tasks, which I had been

told were the reason I was here, and yet, it all seemed so unimportant. I longed for another encounter with one of them. My heart would race whenever I heard the clinking of chains approaching me, but they always walked past me to attend to another's transgressions. How could they possibly be more deserving than me?!

As the day went on, I resigned myself to my job. I even started to enjoy it, but deep inside me I knew that I could feel more. I thought back to my first and only encounter of the day and regretted not doing more. I wanted to live in that moment. I fantasized about that moment. I made myself a silent promise to take advantage of the first opportunity I could, to please them. The sweet rustle of the chains could be heard once more, but I was more cautious with my feelings this time. Another disappointment might have crushed me.

This time, however, he stopped in front of my congregation and prepared to address us. Could this be the opportunity I was waiting for?

He looked over us and announced that he needed someone to finish up the rest of his dressing. "I will!" I cried, like a toddler hungry for the bottle. I ran up eagerly and dropped before him. He extracted a small bottle from his left pocket, gingerly unscrewed the lid, and held it over my mouth. I closed my eyes in anticipation. I waited for one second ... two seconds ... but before I could count the third, it hit me. My tongue could taste hints of sweetness. My lips and cheeks could feel the creaminess as the dressing oozed its way down to my chin. He looked down at me and asked, "Did you like that?"

I swallowed, looked up with pride, and exclaimed, "Yes Sir!"

The Big Al Identity: Oreos Reloaded



SMOKEY THE BANDIT 5B CIVIL

I stood in shock at the development that this tin-foil sombreroed man had just revealed to me, just as shocked as a squirrel being told by a sombrero wearing deer that her aunt is still alive. Alive?! What could this mean for our dear brothel, which had since come under new management as Rusty Ted's Waffles and Landscaping Emporium!?! As I contemplated the implications of – Wait, something's wrong here.

Loyal readers of our most humbled alloyed soldier, you must be thinking, who is this VP-Bandit? I know this, because after my previous foray into journalistic excellence in Fall 2011, Issue 2, I disappeared into the Tibetan Wilderness to study the ancient secrets of mind-reading and car salesmanship. Many cups of the squirrel-adrenaline-and-tree-sap mixture they call iul'ghcv (pronounced "man-must-learn-keyboard-smash-before-understand-secrets-of-our-people") later, I have mastered control over your thoughts, which is why you find yourself continuing to read my harrowing tale. I have also found an incredible increase in Impala sales, but I digress. In any case, if you find yourself confused at any point during my regalement, please refer to my previous "Tale of Captain Jack Sparrow".

As I was saying, I stood in shock at the development that this tin-foil sombreroed man had just revealed to me, just as shocked as a squirrel being told by a sombrero wearing deer that her aunt is still alive. Alive?! What could this mean for our dear brothel, which had since come under new management as Rusty Ted's Waffles and Landscaping Emporium!?! As I contemplated the implications of this harrowing news, I thought to myself, "Whatever happened to John Stamos? I mean, he was Uncle Jesse. Uncle Jesse would know what to do now."

Big Al shifted uncomfortably in front of me, idly chewing on an Oreo stem while he waited for my train of contemplative Sta-

mos-thought to reach its inevitable Full-House-Station. "She's gone into witness protection. She knew the true identity of..."

Big Al looked around, suddenly struck with panic. The sound of his heavy breathing and the bittersweet melody of his slightly-less-than-melodic bells filled the air like the raspberry jello filled the void in my soul after Aunt Ethel died. I swatted away an errant cloud of raspberry jello and leaned closer to Big Al. "Was it...La Muerte De Los Oreos?"

Big Al instantly smiled. "So you know? Excellent. The bilingual mute didn't let me down after all, then. Let me show you where your going to –"

I cut him off quickly. "Did you just say 'your'? I believe it's pronounced 'you're'."

I've never seen a man move so quickly. Before I knew it, Big Al had one arm around my waist and was reaching under his desk with his other hand. I reacted out of sheer unkempt bravado, a remnant from my days serving as John Stamos' butler (often, Mr. Stamos would jump around a corner and attempt to stab me with a live piranha while I was doing the dishes). Reaching into my pant leg and pulling out the first Iguana I found, I swung with all my might, only to hear a sad "clink" as the iguana went spinning away like an errant Beyblade (Pokemon was to be later invented by my Aunt Ethel, who had disappeared and was thus unable to carry out her destiny. In her later years, Aunt Ethel tried to reclaim her youth by creating hundreds of terrible spinoffs, but that is another story for a later date).

"What in the world?!" bellowed big Al. "Your iguana almost damaged my new The New iPad!"

I stared at his new The New iPad. My eyes began to water at its 9.7 inch revolutionary retina display and high definition camera, weighing under 700 grams. It truly was the most amazing iPad yet.

Big Al leaned in close. "Your Aunt Ethel...you'll find her at this location." He pointed to his iPad, which displayed only the reflection of Big Al and myself. The cruel joke suddenly unravelled before me. Could it be true? The cruel, yellow smiley-face loomed before my vision, taunting me

like the Higgs Boson taunted science.

Wal-mart.

I knew their low prices hid something much worse, much more sinister, than reasonable savings ever could. I knew where I had to go, and more importantly, I knew what I had to do. Grabbing the nearest object, which happened to be Big Al himself, I hurled it at the window and grabbed his The New iPad as the glass shattered melodically around me. As I ran off into the inky blackness, Big Al's last words to me were "Not my new inky blackness! That cost me double!" before the grim silence

swallowed me.

I found myself walking through the forest, lost among my thoughts. A ringing in my ears from the glass was the only sound. As I listened harder, the ringing became louder, reaching an almost melodic crescendo. Wait, was that in my ears? I listened carefully. It seemed to be coming from my pocket. How could that be? As I stared at the screen of Big Al's The New iPad, the message flashed before me in the notification center, introduced in the new iOS5: "Aunt Ethel has requested you as a Facebook friend."



The Hero of POETS: He turns heads when he walks through the door.

Top Things



DEADPOOL AND THE COMEDIAN 3Z HANDSOMENESS

TOPS (WITH AN S)

You know what's great? Stuff. Stuff is pretty cool. But some stuff is better than other stuff and when you're at a party talking about stuff you might discuss the stuff which is not as good as the good stuff. Now that's a faux pas with a capital "F". So, to help you all out, we've compiled a list of the top stuff, period.

Attractive People: Who doesn't like attractive people? Everyone knows that the best Smurf was Smurfette, that the best witch was Glinda of the North, that the best superheroes are ripped, that the best presidents have nice hair, that the first mom, Aunt Viv, on Fresh Prince was the best, that the best farm animal is the goat, et cetera. Yes, if we had to choose, we would choose to be attractive and be surrounded by attractive people. They smell nice.

Sex: As the Beatles once said, it is all you need. Sex, or "mommy-daddy grown-up wrestling", as it's scientifically referred to, is an act invented in the 1960s, engaged in primarily by young adults who simply forget about it by the time they reach full

adulthood. The purpose of sex is to bind people together (hence the presence of an (albeit ineffective) adhesive) such that they might engage in activities otherwise inaccessible including (but not limited to) brunch, picnics, jealousy, possessiveness, exchanging of flora, and awkward introductions to parents. Also, it makes your genitals feel good.

Money: How do you get stuff? With other stuff of course; which, in today's society, is referred to as money. If you have money, you may not have the stuff yet, but you have the potential to get any of the stuff. When others know you can get stuff, they'll want to be around you more in hope you'll get them stuff with your money. Why not do Scrooge McDuck proud and pour it all into a pool and go for a swim?

Social Interaction: Sometimes people can suck, but what's worse is no people. Even Archie Bunker needs his Edith. People are cool to talk to, especially when compared to not talking to people. If you spend enough time away with people, you actually have to get to know yourself. And knowing the truth about people is totally not a top thing, starting with the man in the mirror.

Dopamine: Science, LOL. Bazinga!

Batman: Batman is so cool; he could totally beat up your dad. Don't believe it? Batman drives the Batmobile; your dad

drives standard. Batman is a billionaire playboy who has most likely slept with Catwoman; your dad slept with your mom (never forget). Batman avoids Joker's intoxicating gas; your dad voluntarily drinks poison and gets mean and calls you a sissy for losing your pee-wee soccer game. Batman beats up criminals; your dad never hit anyone ever! That was a doorknob. Shut up. This point is done.

Chocolate: What is brown, and delicious and melts in your mouth, and isn't Phylicia Rashad? Chocolate. And like Phylicia Rashad, chocolate is something that is good.

Nostalgia: One sure-fire way to ensure that something is incredible, brilliant, way better than anything out currently, and its lack thereof now is exactly what's wrong with today's youth is to make sure it is something that was popular when you were growing up. Superhero cartoons from the 1990s, old episodes of "The Simpsons", that nifty commercial where the robot from planet danger puts his arm back on? Way cooler than modern garbage.

Epinephrine Rush: Near death experience, not part of the top stuff, but the feeling you get after is. Climbing up a wall and falling, not part of the top stuff, but having a safety harness makes the feeling neat. Racing and getting tired, nope, the feeling of flight halfway through a race, yes. Fall-

ing at terminal...you get it.

Sleep: You'll remember what this is like after you graduate.

Music: It's better than silence.

Video games: It's like real-life except it's not at all. Also, all the bullies are just 12-year-olds. Unless you're a girl, in which case, people can get creepy ... fast.

Massages: This is a double whammy if the masseuse is attractive.

Weekends: Everybody's running and the world gets so crazy, when you work so hard there's no time to be lazy. The weekend comes, we're down with that, sleep a lot and make regrettable choices while drunk. Better hurry up, just got two days. Yeah, weekends are way more fun than weekdays.

Weddings: Weddings are fantastic; they're the funeral which you get to attend. Everyone you know gets together dressed nicely, if religious there is a ceremony, there are a lot of flowers and classical music, all of your friends get up and give speeches about how great you are and how much they love you, and there are a lot of tears. Then your friends never see you again and your estate is divided up.

Birthdays: ... at least they are when people remember.

Waking up before the Alarm: You feel like the biggest race-winner since White People.

Point Vs. Counterpoint

POINT

BANANA BAGGINS
6L SHIRE

Let's start with the obvious point of clarity; this article is not misnamed nor is the title an intentional (or unintentional) pun. This is a revolution.

Being myself a person who has never been wrong, I appreciate the feeling of being write more than anyone else I know. Being write is power: intense, throbbing power that can send you over the very edge of success. All that is needed is absolute knowledge of your own absolute writeness, logic be damned and objections negligible. In fact, the only thing that trumps being write is neurotically proving it and declaring your own writeness in any forum available.

But the best way to accomplish this (demonstrate your writeness beyond refute) is to write long and hard-hitting opinion pieces whose impact can still be felt for many hours afterward. Immortalizing your writeness in a well-respected publication like the *Tin Soldier* is the perfect way to ensure all that is inside you is spread indiscriminately to the masses. So, if the write way to be write is to write everything that is write, why bother splitting hairs? I hereby declare total amalgamation of the terms in which two come together to

create a magical feeling that is oh so write.

It's not difficult nor is it confusing. You already know that everything you feel is write. Accept it. And then force everyone else to do so. People will thank you for the astuteness and the utter writeness of your way of thinking. There is no sensation in the entirety of the human experience quite so satisfying as knowing you've had your way with a grateful world. See how easy it is? Step one: know you're write. There is no step two. All that stands between you and eternal writeness is the conviction to just get to it in an impassioned public display.

Who says that people are meant to make mistakes? Those without the foresight to simply always be write! By being write, you can ensure that your voice is heard (and read). Being write is the only way to be seen as an intelligent and capable. Being write will centralize you in the thoughts and fantasies of others. Being write will make you a winner.

And everyone wants to be a winner! A hypothetical poll probably confirmed that 100 percent of those asked would prefer winning to losing (being wrong). Because in the end, being wrong is just not the same as being write. Being wrong is the kind of basic act which is sure to be awkward and at least a little bit dirty.

Write or Wrong?

PHILIP PANT
4Q INAPPROPRIATE

Originally when told to argue for "Wrong", I was told that the topic would actually be about "Right versus Wrong". As my point partner has already picked a provoking piece for her palate, by arguing for being "write" instead of "right", I've clearly proven the correctness of being incorrect. I don't think I need to further argue about how "wrong" wins this PCP as the entire body of that point can only provide supporting arguments for my counterpoint. I'm not even sure if that sort of thinking makes sense, but even if it's wrong, it's right in the sense that I win. Game over. But really, how else is being wrong the clear winner over anything?

To quote Ms. Frizzle from *The Magic School Bus*, "Make mistakes, make mistakes, make mistakes. It's the best way to learn something." As a fellow member of the academic movement that is our Engineering Undergraduate Faculty, I have personally seen the effects and benefits of being wrong over write. How else could I have made it to 4Q? The best way to demonstrate your learning is to make mistakes where it really counts. Finals make up at least half your grade in most of the classes taken by undergrads. By being wrong on your final exams, you demonstrate how much you've learned and how closely you've followed Ms. Frizzle's words. I've been wrong numerous times and they have done a world of good. I've received a lot of valuable material from my TAs and Profs whenever my exams and assignments

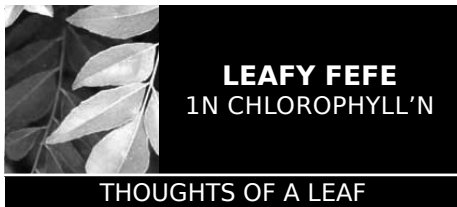
COUNTERPOINT

are returned. Corrections? No, just pure knowledge. If I were to be right on my assignments, I wouldn't receive any new knowledge. Just checkmarks, and checkmarks aren't learning material. It just goes to show that being wrong in academia really pays off.

In order to be a true supporter of being wrong, you have to go all the way. That's right, you know what I'm talking about! Being just totally wrong and off-the-wall brings out your innermost creativity. As we all know, creativity is a key element when coming up with innovative and clever solutions in all engineering applications. By being wrong and completely inappropriate, you put your creative skills to the test. Crack a joke; make a funny; do something that you know will bring the most delightful look from the faces of your friends. Just a reminder: you can't just half-jerk your efforts, you have to forward thrust them until you reached your own personal climax. To take a page from our own outgoing executives, make the effort of being wrong as part of your Forward Action Plan. You can definitely make this Very Achievable Goal a pleasure to work on. Be wrong in every way possible, in the words you choose, in the jokes you crack, and even the butt you smack. As always, be safe whenever you pursue your practice of being wrong. If you think you may be too wrong, put a rubber band on yourself as a good reminder. If that won't remind you every time you look at it, pull it and smack yourself with it. You know you're doing the right thing by doing the wrong thing.

Overlord's Note: *Point Vs. Counterpoint* is a feature meant to fill space in the paper and demonstrate how effective arrows are at pointing at important things. The views and opinions expressed here were forced on publication day from unwilling writing grunts. *The Tin Soldier* denies all allegations of cruelty to writers. We have lawyers and we're not afraid to use them.

Fall is Coming



Sway. Sway. Swaaaaaay. 'Tis such a nice day today. The sun is bright, and the world is light. I like light. Light helps me produce sugar. I like sugar. Sugar is food. I like food. But I do NOT like BEING food. Stupid caterpillars. The sugar I make is NOT for you. MAY THE BIRDS EAT

ALL OF YOU. It's for ME. Not that I'm a self-cannibal or anything. And butterflies are kind of pretty.

Oooh look, it's a squirrel! Urgh, it's running at me. Please don't kick me please don't kick me, please don't kick me. It stepped on me. Now I have a crease. I hope you fall off the end of the branch, you annoying rodent.

There is light, but it is not very warm. Fall must be coming, and I'll need a new look. They say orange will be the new green this season. I don't know though. I liked the classic yellow look. Or I could be dar-

ing and go for a bold red hue. I'd certainly stand out on the branch. I'd better hurry or else the snobby elite top leaves will start the trend instead. They think they're so much better than us. It's unfair that 20% of the tree gets so much of the sun's wealth. That way, they get to stay on top of the trends.

There is light, but I kind of want rain now. I'm thirsty, and some water would be nice. The weather has been sunny for a while. But things must be balanced to be good. Sun and rain. Light and water. They both help me make sugar. I like sugar. I've been through this before.

Maybe the Leaf God will send us rain. I can see him now. He is perched up there, on the long, grey, branchless tree. Bigger and higher than any of us. He is untouchable. He is beautiful. Maybe I can copy his beautiful red colour. On windy days, He waves at us, and we wave back.

Swaaaay. That's a nice breeze. I like swaying. I also like fluttering around like an epileptic...leaf. Flutter flutter flutter. When we all flutter, it's like we're all waving at the passing humans. They never wave back though. Never. Instead, they kill us.

No-Fail Date Movies



There is no such thing as an all-around awful date movie. Even if you like French documentaries, there is, statistically speaking, someone out there for you. The same goes for Pixar buffis, blaxploitation nerds, etc. There is, however, such a thing as an all-around winning date movie. These are the ones that send unambiguously clear messages to your movie companion, affect the heart, stir the loins, or whatever. There are three main categories.

First of all, there are the power-establishin' movies. Someone in this movie must be wielding a weapon and using it to slash their way through members of the opposite sex. Or both sexes, or the same sex. It doesn't really matter as long as there's some sexually-motivated violence involved. Think *Thelma and Louise*, *Kill Bill*, *Basic*

Instinct, *Fight Club*, *Halloween*. The danger suggested by these movies will make you seem brooding, dashing, and alluring. You will also be able to utilize off the gender-neutral protective arm tactic! Do not panic if your date ducks under it and beats a path to the nearest well-lit public place.

Alternately, films about the fragility of the human condition are recommended in order to show that you are sensitive, in touch with the world, and "strong but sensitive". *Requiem for a Dream*, *Blue Valentine*, *(500) Days of Summer*, *Schindler's List*, and *Precious* all ably fulfill this purpose. Together, you and your film partner will be able to delicately touch upon the depths of the human psyche and forge a deeper emotional connection. Sadness is a fundamental part of life, so why shy away from it? Human tears are high in electrolytes. You should drink your movie buddy's tears in order to maximize your mutual enjoyment of this movie, and to stay hydrated. Waste not, want not.

Last of all, there are the romances. Think

Shakespeare in Love, *The Notebook*, *Australia*, *Brokeback Mountain*, *Titanic*. It sends a clear message about the romance you guys should aspire to! These movies can inspire you to greater heights of lurr-r-r-rve and stuff. Occasionally people get in the way and die, but that's life. Especially if someone dies tragically young. At least your date will be able to reminisce fondly over your corpse and write more epic ro-

mances. For best effect, don't forget to re-adjust your posture in a significant manner during the sex scenes. If the other person's spine is carefully ramrod straight, it may be symbolic.

So, that's my official word in romantic movies. If you make it through the end of any of these with your clothes still on the problem is you. Good luck, and get cracking!



Say hello to trying one more, one more time?

Ukodus

Because Sudokus Aren't Hard Enough

5	4	5	1	5	5	2	2	3
3	1	2	5	4	3	3	5	4
3	1	3	4	3	2	1	4	5
2	3	2	3	1	3	4	5	2
1	2	4	2	5	4	5	3	3
4	5	3	5	3	5	2	1	2
5	3	1	1	2	5	3	4	5
1	2	4	4	3	5	3	1	1
2	3	2	3	4	1	5	3	2

Unlike a sudoku, where you must solve which numbers go where, instead you must figure out which numbers must be removed.

1. Cross out digits so that each horizontal and vertical line has only one of each digit, and so that all 9 3x3 boxes in the 9x9 grid has only one of each digit.
2. In the puzzle, the four purple boxes must also only have one of each digit.
3. If this is too hard, do as the kindergarteners do and colour in this picture of the new exec, which is half done for you already!



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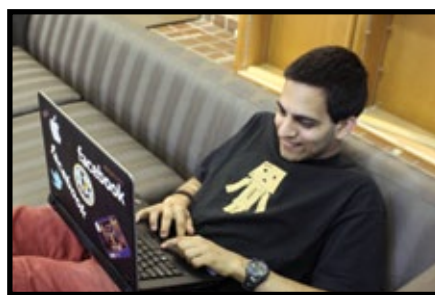


THE TIN TRIBUNAL
Curious Emily, Nan Huang Huang and her boyfriend, Er'ryday ballers

"Where is the best place on campus to copulate?"



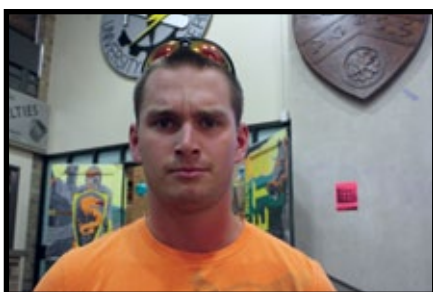
"The turnkey desk - free condoms!!"
Kenneth Kwong, 2B Surveying



"E5 washrooms, they're insanely clean and comfortable."
Samarta Kochhar, 1B Robots



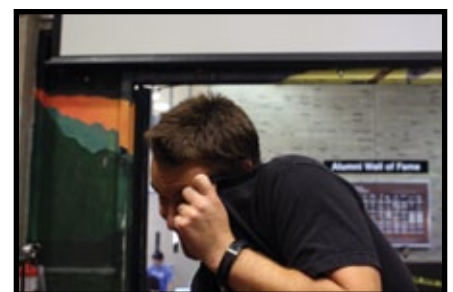
"St. Jerome's Library - it's empty in summer, or the Math Lounge, because it's comfy ;)"
Andrew Mendonca & Jinu Kurian, 2B C₆₀



"Mary's chair. You get the added thrill of redefining 'double cheeky'."
Brock Kopp, 3T Focing



"Oh dear... I've heard stories about the IW office... and seen those couches."
Steve Hollaar, 4A Bookkeeping



"WEEF T.A. office... because I've done it."
Scott Rankin?, 5T Civil