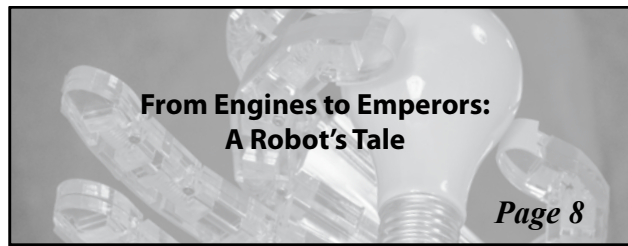


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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

VOLUME 31 ISSUE 12 | WEDNESDAY, OCTOBER 13, 2010



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The Exceptional Recipients of the Nobel Prize

FARZI YUSUFALI
2A NANOTECHNOLOGY

I don't know about you, but I have found that the Nobel Prize announcements this year have been more highly anticipated by the general public than those in past years. But first, a little background info; as you all know, the Nobel Prize was created by Alfred Nobel who was an excellent scientist, inventor and entrepreneur in Sweden. He laid the foundations of the Nobel Prize, by leaving most of his fortune to the Nobel Prize's establishment. The first Nobel Prize was handed out 1901 and continues to be awarded every year, under the careful consideration of the Nobel Foundation in Stockholm. The recipients are those who excel in physics, chemistry, medicine or physiology, literature, economic sciences and, of course, peace. Unfortunately, Nobel Prize for Economic Sciences will not be covered in this article due to the timing of the announcement and the IW distribution.

This year's award-recipients are especially distinguished, since they all vary greatly in age yet still contribute to the betterment of humanity and technology in such a way that it could be considered nothing less than pure genius.

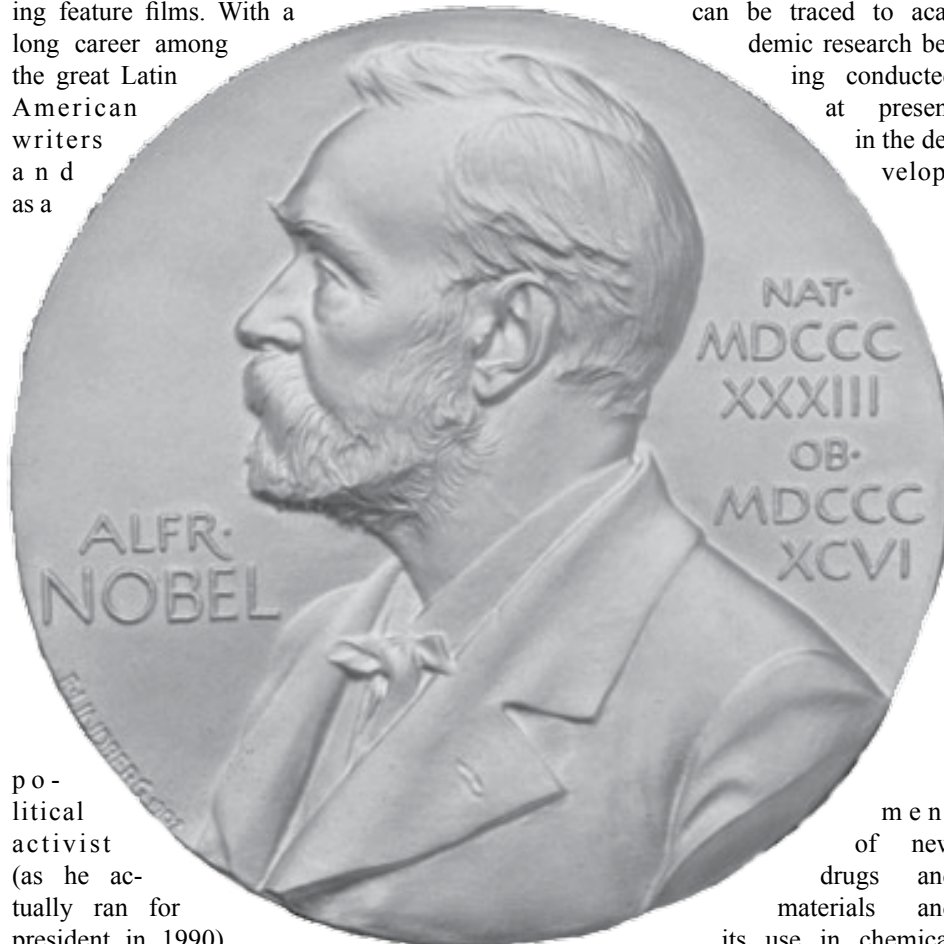
The Nobel Prize in Literature for the year 2010 has been awarded to Mario Vargas Llosa "for his cartography of structures of power and his trenchant images of the individual's resistance, revolt, and defeat." In common prose, this means his fictional works ranging from mystery to comedic compositions tackled the political, social

and economical issues of the average man. This Peruvian writer has become the voice of the Latin American generation with his best books becoming international sensations with a couple of those becoming feature films. With a long career among the great Latin American writers and as a

political activist (as he actually ran for president in 1990), the Nobel Foundation, and I, now that I mention it, deem him more than worthy for this prestigious award. This year, the Nobel Prize in Chemis-

try has been awarded jointly to Richard F. Heck, Ei-ichi Negishi and Akira Suzuki for their success in "palladium-catalyzed cross couplings in organic synthesis." The significance of this breakthrough

can be traced to academic research being conducted at present in the development



of new drugs and materials and its use in chemical synthesis of pharmaceuticals and other such biologically active substances. The premise of this breakthrough was to create

new carbon-carbon single bonds, which is essential to all life, with a palladium catalyst that can be used under mild conditions for a large number of functional groups. Due to its wide application, this cross coupled catalyst reaction has now been used to synthesize hundreds of new drugs, chemical substances and molecules that exhibit cytotoxic, anti-tumour and therapeutic properties. With a breakthrough at such a fundamental level, it is safe to say that this contribution definitely makes Heck, Negishi and Suzuki worthy recipients of the Nobel Prize.

The Nobel Prize in Medicine 2010 was a long time coming for Robert H. Edwards. His contribution to medicine began in 1960, as the architect behind in vitro fertilization (also known as test tube babies). You don't need me to tell you what the implication of this contribution is; just ask the couples who are unable to conceive (which comprise approximately 10% of all couples worldwide). Edwards and his colleague, Steptoe, were the first to conduct research on the reproductive organs of a woman and to finally deduce that the ovum could mature and eventually be fertilized outside the body. Fast forward about 15 years and the first baby, Lorraine Brown, was born healthy via IVF. Considering the fact that there is still controversy regarding this procedure, no one can dispute that Robert H. Edwards' medical breakthrough changed the lives of millions of people, thus making him a great choice for the Nobel Prize.

See Nobel Prize Laureates on Page 3...

Municipal Elections: Voting is Easier than You Think

SPENSER GOOD
1A MECHANICAL

With midterms approaching, it is easy for us to get caught up in the stress of school and forget about the Waterloo Regional Municipal Elections. Although it is hard to divert our attention from school and friends, our votes will make a difference on October 25th and, believe it or not, local politics play a huge role in our lives. From the buses that bring you to school in the morning to the lights that guide your way home at night, the people you elect to sit in the City Hall do make an important difference in your life. As a major segment of the Waterloo community, election officials have emphasized that student participation is important and voting really is easier than you think.

The most common complaint heard when asking students why they choose not to vote is that are not well informed enough to make the decision associated with filling out a ballot. The solution to that problem is simple; there are an abundance of media venues that provide information on the candidates and the issues they defend. The Kitchener-Waterloo Record provides

extensive coverage, and each major candidate has their own website. For those with access to cable TV, Channel 20 provides extensive coverage of the campaign every Monday through Thursday at 7 & 10 PM. With so many sources of information to choose from, there really is no excuse for students not to be able to make an 'educated' decision.

Furthermore, almost all the students on campus are eligible to vote. In order to vote, you must be a Canadian, 18 years of age and reside in the Waterloo Region. As a student you are allowed to vote in both the region where you are temporarily residing (i.e. Waterloo), and your permanent home in another municipality. If you live on res, or do not have proof of your Waterloo address on any of your identity cards, there are other ways to provide proof of address, including a credit card receipt, pay stub or phone bill. If you have none of these, you can simply fill out a declaration of identity form at the voting location when you arrive to cast your ballot, which is simple but a little bit more time consuming. So yes, you are eligible to vote in this election.

See Voting on Page 5...

New Engineering Options!

ANGALI GOPAL
2A NANOTECHNOLOGY

Hey there, engineer! Are you a biology, or earth and environment, loving geek? Have you secretly been hiding your passion for such disciplines among your physics-and-math loving brats peers? Well, fear no longer! The Faculty of Engineering has set out to introduce a variety of new options, especially in the biological, earth and environmental sciences.

What exactly is an option? An option is like a specialization that you can pursue within your engineering program. In addition to the core engineering courses, students who choose to pursue an option must take additional courses (either as Complementary Studies Electives or as 'extra' courses) from a select list to fulfill the option requirements. Options generally provide a depth and breadth of knowledge that might not be available from the regular engineering program. Unlike minors, which are generally coordinated between the student and an external faculty, options are offered through the Faculty of Engineering. Options also don't have as many courses as minors. In Waterloo, a minimum of 10 courses is required for each minor, whereas options require only 6-8.

At present, the majority of options offered by the engineering department are all math, physics, or design based. Some of the current specializations that exist include options in Physics, Statistics, Water Resources, Management Sciences, etc. Although there is one Biomechanics option, the list of courses that must be completed to receive credit for the courses are mostly design and anatomy-based courses.

However, that is about to change with the list of new options that will soon be available to engineering students. Last year, Prof. Marios Ioannidis, director of the Nanotechnology Engineering program, visited the 2014 class to detail a list of options that will soon be available for the entire engineering faculty. Prof. Ioannidis confirmed that although the options haven't been officially released yet, they are in the process of being approved (and they will definitely be available before the 2014 class graduates).

These options will be especially helpful to the Nanotechnology Engineering and Chemical Engineering students, since some of the mandatory courses required to fulfill the option requirements are part of the core Nanotechnology Engineering, or Chemical Engineering, curriculum.

See Options on Page 5...

Letter from the Editor

Safety procedures are not just a formality.



**YIK TUNG
ROY LEE**
EDITOR-IN-CHIEF

Hello everyone! Issue 2 was a good time. It was a bit tougher than issue 1 mainly just due to the weekend that it fell on. Most people go home for Thanksgiving, including *The Iron Warrior* staff. However I would like to quickly thank the few people who helped out this weekend, whether it was here in the office or via the magic of the internet. Thank you!

Now onto my blurb about safety. I spent my last work term in Calgary working for an oil and gas company. Now before you get all anti oil-sand on me, I was not working with the production of heavy oil. I was working with process safety and occupational safety. A ramble about environmentalism and oil-sands will be an editorial saved for another time. Working with safety definitely changed my view of the world around me.

I am now super aware of all the safety mechanisms or safety features put in place to protect me and to protect others. I am also inherently aware of the dangers related to compressed gas and various other chemicals. My friends in Calgary can attest to that last statement. We went camping a couple times over the summer term and I would have a minor panic attack if a propane gas tank was left out in the sun or if the tank was not standing up right. My friends often tease me about it when I point out these situations. I realize that my caution was a little excessive, but I have learned that it is better to be super cautious than sorry, as I would not like to be part of a flammable and explosive plume of propane nor would I like my friends to be part of such an unfortunate incident.

Now you might be wondering if this relates back to you. Well it does! Safety is everyone's business. If someone isn't being safe, you are possibly in danger, especially in a lab. Even the Nanotechnology Engineering program cranked up its safety requirements for labs and what not. We now have a safety quiz at the beginning of every single lab, these quizzes are composed of questions about the MSDS, procedures for using some of the equipment and the safety gear required for the lab. Mind you this ends up creating a gazillion questions about wearing goggles. This whole process is already becoming a little bit redundant, but safety is redundant in nature. Hopefully this standard for safety will be transferred over to the other labs, such as the ones in Chemical, Mechanical and all other forms of labs in general.

Now let us talk a bit about safety at

work, which I am sure you've all heard about. You have the right to refuse unsafe work. You have the right to proper training. We often forget how important training is. I mean, for me, I know that whenever I get a new phone or some new device I just play around with it until I figure out how it works and what not. There is little danger in this, I mean what will happen? We'll accidentally open the internet browser and download a few kbs of data and we'll spend a few extra dollars. No big deal right? Well this same practice with figuring stuff out by yourself, should not be applied in the industry. No matter where you work. WorkSafeBC released a video about incidents that happened to youth that got caught in some unfortunate situations. Check it out <http://www.youtube.com/watch?v=DMT50Fw5OCQ>. They may not have made the greatest choices but if they had a bit more training, maybe some of these incidents could have been prevented. Many people assume that safety is common sense, and in all fairness it often is. However, when you are working with new machinery that you don't quite understand, common sense is no longer common. There is no basic knowledge for common sense to develop off of and therefore it is developed incorrectly as the correct assumptions cannot be made. Every one of these incidents started with some pretty simple tasks that aren't that dangerous; however because of the situation and the other circumstances that were involved they ended up risking their extremities and in some cases their lives. The people have been forever changed by these accidents and will never be the same again. Now most of us would say, "I'm smarter than that; I wouldn't do something that stupid," however we forget that when we look back at these events we are shown all the exterior circumstances that lead to the outcome. When someone is in that situation, they either don't notice all the hazards around them or they falsely evaluate the amount of danger associated with the hazard. Without the training and experience that more seasoned workers have, we cannot take the same shortcut as we do not understand all the risks involved in the task and thus cannot account for them.

Safety in process design is also important. There are often many safety mechanisms and procedures designed into systems so that nothing bad happens. Let us take the Piper Alpha incident, an oil production platform exploded, resulting in a fire that destroyed the rig and killed 167 workers. This incident illustrates the need for safety mechanisms and the need for redundancy in safety. It also emphasizes the need for safety to be taken seriously and not just as a formality. There were two

large gas pumps that supplied the electric generators on the platform. Nearby there were gas pipes that connected two other platforms to Piper Alpha and served as a passage to the mainland. One of these pumps, pump A, was under maintenance and the work was not finished before the end of the shift. The supervisor in charge filled out a work permit stating that pump A was not operational. This work permit was supposed to be taken to the engineer-in-charge to sign off. He was busy so the supervisor left it on the desk for the engineer to complete and sort properly after. Although this appears to be a redundant formality, it was important for safety. The form should have been accompanied with a person to person exchange, but it failed to get enough attention. Now elsewhere on the platform there was an automatic fire-fighting system which pumped water in from the ocean to put out fires on the platform. This system was placed under manual control to prevent the divers working in the water from getting sucked into the pumps. Back to the pumps, the shift that was doing maintenance on pump A was now off and a new shift was working. Pump B failed and the supervisor, not having been informed that pump A was still not operational, went to start up pump A. Upon activation of pump A, there was a huge release of natural gas. The gas exploded, destroying the emergency intercom system, control room and nearby pipelines. The engineer-in-charge hit the emergency shut off to stop production on the platform. However, natural gas was still back feeding from the other platforms. Another pipe over-pressured, releasing more gas to fuel the fire. At this point, workers had gathered on the accommodation deck, in the path of the smoke coming from the fire. However, with no communication on the ship and no way to start the fire fighting system, the fire continued and consumed more gas pipelines. The accommodation deck lost support and fell into the ocean along with other parts of the platform. Had there been a backup communication system the workers could have been told to evacuate the platform, however their emergency procedures told them to gather in the accommodation deck and wait for further instructions. Overall the Piper Alpha incident was caused by not applying full safety procedures because they seemed redundant at the time.

In conclusion, safety is there to keep you safe. It can be redundant and therefore annoying, but redundancy makes safety more effective. It is not just a formality and should always be taken seriously and understood.

Other than that, stay safe and have fun!
Roy Lee

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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The Nobel Prize Laureates Announced

From Nobel Prize from Page 1

The Nobel Prize in Physics for 2010 caused quite the stir among the Engineering Faculty (especially the Nano classes) due to the recipients' so-simple-it's-genius discovery. Andre Geim and Konstantin Novoselov were both awarded the Nobel Prize "for their groundbreaking experiments regarding the two-dimensional material graphene." Graphene is a 2D plane of carbons all bonded in a network that resembles a honeycomb which was, until 2004, thought to be impossible to isolate stably, reproduce, and characterize. Not only were Geim and Novoselov able to isolate graphene, they did so by essentially using Scotch Tape to repeatedly remove the layers of graphite (that's right, graphite from a pencil) which was eventually deposited onto a silicon substrate. Graphene's desirable properties include its me-

chanical strength (which happens to be 100 times stronger than the strongest steel), transparency (only 2.3% of all light is absorbed), high conductivity (it beats copper by a long-shot), flexibility, and its ability to be doped to suit any application. To give an idea of the use of graphene, it can be used as super-flexible touch screens, ultra-high frequency processes, composites for airplanes, tablets, solar cells, light panelling, ultra-sensitive sensors, and even electronic payment. Needless to say, this discovery is groundbreaking due to the wide number of applications from fundamental physics to the booming field of nanoelectronics. It is no wonder that Geim, Novoselov and their significant contribution (I still can't believe that they got graphene with some pencil lead and Scotch Tape!) is Nobel Prize material.

Last, but not least, the Nobel Peace Prize this year was awarded to Liu Xiaobo for

"his long and non-violent struggle for fundamental human rights in China." As a poet and literary critic, Liu came into prominence over the last two decades as a visible leader for China's post-democracy movement. His ascent to fame began when he relinquished his university education in the US to help lead the non-violent side of the student occupation in Tiananmen Square. Due to his involvement in this major event in Chinese history, he was sentenced to two years imprisonment and an additional 3 years of "re-education" through labour for campaigning against the one party rule in China. Currently, he is serving an 11 year prison term for "inciting subversion of state power" after writing an important petition that demanded political reform and increased recognition of fundamental rights in 2008. This petition, known as Charter 8, has gathered thousands of signatures from people of all walks of life.

Before the official release of Charter 8, Liu Xiaobo was arrested and was sentenced a year later, about a month before the Nobel Prize nominations closed. Liu Xiaobo has continued to write in prison where one of his statements, "Opposition is not equivalent to subversion," struck a chord among the Nobel Committee. Liu Xiaobo now joins the ranks of three others in history of being a Nobel Peace Prize winner while being imprisoned.

Each of the winners are extraordinary in their own right and have each made a contribution that has resonated their brilliance in their respective worlds. This year's Nobel Prize recipients have greatly renewed my interest in the all things revolutionary which includes anything from physics to peacemaking. With the amazing landmarks that have been celebrated this year, I can't wait to see what these crazy folks will do next!

The Ig Nobel Prize "Laureates" Announced



KRISHNA IYER
2A NANOTECHNOLOGY

The Nobel Prizes have recently been announced in all their historic grandeur. However, in order to tickle the anatomically-absent funny-bone of humanity, the Ig Nobel prizes were conjured up in 1991. They are intended to celebrate and honour all kinds of research, however unusual they might be. Like every year, this year too the ceremony was held with a lot of fanfare in Harvard's Sanders Theatre. Like the Nobel Prizes, the Ig Nobel prizes are awarded in a variety of categories. The winners are celebrated and at the end of the ceremony, paper planes are thrown onto the stage. Since the inception of the awards, the "Keeper of the Broom" has been Dr. Roy Glauber, a Nobel laureate in physics, who sweeps the stage clean of the planes (except for 2006 when he was in Stockholm receiving his Nobel Prize). The

prizes are conducted by the journal "Annals of Improbable Research". Although Ig Nobel Prizes appear to be a criticism of trivial research, they have actually led to breakthroughs in certain aspects. For example, the 2006 study showing that the malaria mosquito is equally attracted to Limburger Cheese and the smell of human feet earned the Ig Nobel prize. As a direct result of these findings, traps with that kind of cheese have been implemented in Africa to combat the menace of malaria. This year, the awards were awarded to the following recipients:

ENGINEERING: Karina Acevedo-Whitehouse and Agnes Rocha-Gosselin of the Zoological Society of London, UK, and Diane Gendron of Instituto Politecnico Nacional, Baja California Sur, Mexico, for perfecting a method to collect whale snot, using a remote-control helicopter.

MEDICINE: Simon Rietveld of the University of Amsterdam, The Netherlands, and Ilja van Beest of Tilburg University, The Netherlands, for discovering that symptoms of asthma can be treated with a roller-coast-

er ride.

TRANSPORTATION PLANNING: Toshiyuki Nakagaki, Atsushi Tero, Seiji Takagi, Tetsu Saigusa, Kentaro Ito, Kenji Yumiki, Ryo Kobayashi of Japan, and Dan Bebber, Mark Fricker of the UK, for using slime mold to determine the optimal routes for railroad tracks.

PHYSICS: Lianne Parkin, Sheila Williams, and Patricia Priest of the University of Otago, New Zealand, for demonstrating that, on icy footpaths in wintertime, people slip and fall less often if they wear socks on the outside of their shoes.

PEACE: Richard Stephens, John Atkins, and Andrew Kingston of Keele University, UK, for confirming the widely held belief that swearing relieves pain.

ECONOMICS: The executives and directors of Goldman Sachs, AIG, Lehman Brothers, Bear Stearns, Merrill Lynch, and Magnetar for creating and promoting new ways to invest money — ways that maximize financial gain and minimize financial risk for the world economy, or for a portion

thereof.

PUBLIC HEALTH: Manuel Barbeito, Charles Mathews, and Larry Taylor of the Industrial Health and Safety Office, Fort Detrick, Maryland, USA, for determining by experiment that microbes cling to bearded scientists.

CHEMISTRY: Eric Adams of MIT, Scott Socolofsky of Texas A&M University, Stephen Masutani of the University of Hawaii, and BP [British Petroleum], for disproving the old belief that oil and water don't mix.

MANAGEMENT: Alessandro Pluchino, Andrea Rapisarda, and Cesare Garofalo of the University of Catania, Italy, for demonstrating mathematically that organizations would become more efficient if they promoted people at random.

BIOLOGY: Libiao Zhang, Min Tan, Guangjian Zhu, Jianping Ye, Tiyu Hong, Shanyi Zhou, and Shuyi Zhang of China, and Gareth Jones of the University of Bristol, UK, for scientifically documenting felatio in fruit bats.

Swearing in of the Governor General



MIKAYLA MICOMNACO
3B ELECTRICAL

On Friday, October 1st, his Excellency the Right Honourable David Johnston, the former president of the University of Waterloo, became the 28th Governor General of Canada.

The ceremony for the swearing in of each of Canada's Governor Generals is unique. David Johnston's ceremony began with his arrival, along with his wife Sharon Johnston, at Parliament Hill. Upon his arrival, they were greeted by thirteen Canadians, one from each province and territory. Each representative presented them with roses, and extended the good wishes of the province or territory they represented.

Following this welcome, Johnston proceeded to the Senate chamber for his formal swearing in. The Chief Justice administered the oaths of office, which coincided with the raising of the Governor General's flag on the peace tower.

Following his oath, David Johnston delivered a speech. Traditionally, the speech of the new Governor General is an indication of the goals and priorities that they intend to pursue throughout their term in

office. Johnston highlighted three priorities in his speech; supporting families and children, reinforcing learning and innovation, and encouraging philanthropy and volunteerism. He spoke of several topics, including the inspiration he takes from his wife and children, and how he views his role as the Governor General as that of a bridge to bring the diverse people of Canada together "to create a Smart and Caring Nation." He ended his speech with the quote from George Bernard Shaw: "Some people see things as they are and wonder why. We dream of things that ought to be and ask why not." To see the full text of Johnston's speech, visit <http://www.gg.ca/document.aspx?id=13890&lan=eng>.

Following his speech, a reception was held in the Hall of Honour. During this reception, the new Governor General was given the opportunity to meet with Canadians who have made a difference, either in their own communities or around the world.

Finally, the Johnstons departed Parliament Hill. Prior to leaving, they received the Royal Salute and the 21-gun salute, and David Johnston inspected the Guard of Honour. On their way to Rideau Hall, the residence of the Governor General and his family, they stopped at the Tomb of the Unknown Soldier to lay the roses they were presented with upon their arrival.

A Word of Clarity on the European Travel Advisory



SPENSER GOOD
1A MECHANICAL

As of October 6th, Canada, the United States, Great Britain, Japan and Sweden had all issued travel advisories recommending increased caution while visiting mainland Europe. The advisories have left many people confused and suspicious. Although the basis for the advisories remains vague, and specific target countries have not been stated, recent Western security experts are concerned of a terrorist plot aimed at a high profile European target, most likely in France, Great Britain or Germany.

The basis of the advisories can be attributed to reports that Osama bin Laden himself is believed to be masterminding a plot involving high profile European targets. Such an attack could be high profile and of a large scale.

The main message of the reports is not aimed at discouraging travel to the area, but instead to increase vigilance among citizens visiting Europe. The specifics of the statement from Foreign Affairs Canada read, "Canadians should be aware of their surroundings at all times,

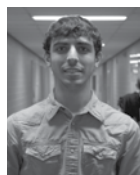
monitor local news reports, follow the advice of local authorities, and take appropriate steps to ensure their personal security."

More specifically, the advisory suggests that citizens remain extra vigilant while visiting high profile destinations or while utilizing public transportation, mainly because these are often the targets of terrorist attacks. Many security experts have been saying that the attacks will be similar in scale and target to those that occurred in Mumbai in November of 2008.

This being said, the advisory does not indicate such attacks are inevitable, but instead suggests the probability of one occurring now is more significant than it has been for a while. Cancelling travel plans would be foolish, but dismissing the advisory as a joke based on fear mongering would also be unwise. Travelling always has its risks, regardless of where you are going or the advisories in place, but we can't lock ourselves in our homes because of such threats. If you're planning to go to Europe anytime soon do not make any changes, just do what any smart traveller would do; carry some ID, listen to the news, and be vigilant.

Presenting the BlackBerry PlayBook

“Enterprise Ready” “Uncompromised Browsing” “Multitasking”



AMMAR MASUD
2A NANOTECHNOLOGY

On September 27th, while most of us were in class, Research In Motion's CEO, Mike Lazaridis, announced the release of their much anticipated tablet, the BlackBerry PlayBook. The PlayBook is RIM's take on a multitouch slate to contend with the Apple's iPad. The iPad opened a new rapidly growing market and RIM wants a piece by creating a tablet that can do everything the iPad can and much more.

RIM made it clear that the PlayBook will flourish where the iPad could not by advertising the features the iPad is known to lack; these include, multitasking, Adobe Flash support, 2 cameras, light weight, 1080p video playback, html-5 support, 4G (models promised for the future), etc. What seems to be one of the most impressive aspects is how thin the tablet is. It is advertised as being the first tablet less than 1cm thick with the iPad being at 1.34cm thick. The main drawback from what is currently known about the PlayBook is the screen size which is 7 inches (17.78cm for anal metric lovers) which sits short of the iPad's screen size of 9.7 inches (24.64cm).

It is suspected a smaller screen is used for two main purposes, the first being to increase the pixel density giving the illu-

sion of displaying a better image in comparison to the iPad while, in fact, the resolution of PlayBook (1024x600) is slightly inferior to that of the iPad (1024x768). The second suspected purpose is to increase the battery life of the device. No information has been announced yet on the battery life of the PlayBook but it will have a hard time competing with the iPad's 9-10 hours (non-standby) of battery life if it had screen of equal size.

If you are currently not getting an iPad and waiting for a PlayBook you will have to wait until early 2011 to get your hands on one. This does not seem to be very well thought out by RIM as many customers will not be sure if they should wait or not without first finding out if the tablet will cost them a pretty penny. To make it even worse, RIM will be missing the holiday shopping season when many customers will have a different tablet on their wish list.

It is ironic that Lazaridis referred to a product named *PlayBook* as the “the first professional tablet” but it seems RIM is aiming for the PlayBook to have the image of being both a fun and professional device. I have heard many complaints about the name of the tablet but it seems that bad names are common in the field of tablets (iPad...seriously?). A bad product name can develop a new image if the product is a hit as proven over and over again throughout history. As for now, I will go play with my Wii.



Engadget.com

It's Management Engineering

CATRINA CHIDO
2A MANAGEMENT

What's that? Is that a real thing? Do Management Engineers exist? Are they an imminent force to be reckoned with? You could say that. These are no pretengineers!

Last Thursday, an MGTE Summit arranged by Eric Li, invited Adel Sedra, Dean of Engineering, and Frank Safayeni, Chair of the Department of Management Sciences, to discuss the prominence of this young program at the University of Waterloo and in the working world. Attendees included Robert Duimering, Associate Chair of Undergraduate Studies, and the 2A and 3B students.

Dr. Sedra presented the program at the University of Waterloo as being one of the only existing Management Engineering programs in Canada. “It is an innovative program, with the recognition of the University of Waterloo behind it.” Dr. Safayeni added, “With the existing struggles encountered by companies due to their organization's complexity, Management Engineers provide the resources to bridge the gap between the technical and the nontechnical.” This program offers the opportunity for interdisciplinary perspective, developing the ability to think critically and solve problems utiliz-

ing multiple points of view. It is a versatile discipline fitting many positions, and equipping students with the background in technical knowledge and skills, as well as the managerial savvy to handle a variety of challenges, including business decision making, project budgeting, and professional diversity.

With the ongoing changes to the Engineering faculty's home on campus, the Management Sciences Department is looking forward to an expansion in space, and will potentially occupy the current Offices of the Dean, once the Dean's office moves to E7. As the program matures, continuous growth is expected, and numerous initiatives are being implemented to promote spirit throughout the program. Be on the lookout for MANhood, a competitive event focused on solving management problems, in early November. Such events provide a welcome to the program, and a chance to work with upper-year Management Engineers.

So, if you are wandering through campus and come across a Management Engineer, you might feel inclined to ask “What are you going to do tonight?”, and the Management Engineer just might reply, in the infamous words of Pinky and the Brain, “The same thing we do every night – try to take over the world.”

Elections, Debates and Conferences

TREVOR JENKINS
FEDS COUNCILLOR

Hello beautiful people,

There are three things I'd like to pass on from the Federation of Students this week.

The first is that this is an election year for municipal governments across Ontario. Students hold a lot of power in these elections since we are such a large group, and municipal policies, like housing standards/licensing and by-laws, have such a huge impact on us. Even if you don't consider Waterloo “home”, you are still entitled to vote in the Waterloo elections if you meet three criteria: **1.** you must be over the age of 18, **2.** you must be a Canadian Citizen, and **3.** you must be a resident of Waterloo. Not only can you vote in Waterloo, you are also entitled to vote in your permanent home in a different municipality. For more details about proper ID and voting locations, check out www.waterloo.ca. Voting day is October 25th, but there are a number of advance polling locations before that.

Continuing off from the first point, the FedS will be hosting a mayoral debate in the V1 Great Hall on October 20th at 7:30pm. The four mayoral candidates are all expected to attend. There will be a Q&A session so make sure you bring your ques-

tions. This isn't just for first-years, it's for everyone! I strongly encourage all of you to come out and find out more about each candidate. Better yet, you could win a free iPad by attending. Find out more details at FedS.ca. Make an informed choice!

Finally, the Vice President Education of the Federation, Nick Soave, is currently accepting applicants to attend the Ontario Undergraduate Student Alliance (OUSA) General Assembly in November. For those of you who don't know, OUSA is the provincial lobby group which advocates for educational issues on a provincial level. It is your voice to MPPs. The General Assembly has two main goals: first, it's a chance to hold OUSA and its steering committee accountable for their actions; second, it's a forum that policies and advocacy priorities are debated upon and or approved. If you are interested, check out <http://info.feds.ca/ousadelegation> for more details. If you have any questions, contact Nick at vped@feds.ca. Applications are due October 15, 2010!

If you have any questions, please don't hesitate to give myself or any of the other Engineering Councillors a shout. My e-mail is t.ek.jenkins@gmail.com

Regards,

Trevor Jenkins 1/4 Engineering Councillors.

Help Shape the Future with Plan 2015!

ERIC COUSINEAU
VP EDUCATION

With Vision 2010 concluding this year, it is time that the Faculty create a new set of goals to achieve over the next 5 years. As some of you may know, Vision 2010 had a focus on improving graduate level programs in our Faculty. This time around the Dean's Office would like to focus on improving undergraduate studies, which is great news! This new set of goals has been code-named “Plan 2015” for now. This creates a great opportunity for undergrad students to make things better for the future of Waterloo Undergraduate Engineering. This is why I am writing to you, so that, with your feedback, your student representatives can tell the Dean's Office what they think needs to be prioritized. Don't be mistaken, this proposal will be taken seriously, and the Faculty administration is very eager to hear what we think! With that said, the rest of this article will focus on our submission (How and What).

In preparation of this submission, I have collaborated with all EngSoc Executive and other students to brainstorm a list of goals. I am asking for your feedback on these goals as well as your input on what the Faculty's priority should be on accomplishing them. These are the items that I am asking you to assign priorities to (see below on how to do that):

- Improve Professor Teaching Skills (Communication, Presentation, etc...)
- Improve TA Teaching Skills (Communication, Presentation, etc...)
- Increase the amount of study space (Group and/or Individual)
- Increase the amount of classroom space (to alleviate scheduling problems)
- Increase the amount of student space (to enable groups like EngSoc/FOC/IW to improve the services they offer and create new ones)
- Improve/Revamp the IT Infrastructure used by the faculty (Nexus, Engmail, UW ACE)

- Expand counselling services to better serve student needs
- Modernize the labs used by undergraduate students
- Increased awareness of scholarships offered after first year
- Grow the Faculty endowment

If you feel that there is an item missing from this list that should be a priority, please be sure to include it when you fill out the feedback form on the EngSoc website. Just go to engsoc.ca, log in, and click the link on the homepage to go to the form. On this form you will be asked to assign a priority to each of the items listed above.

In preparation of the submission I will be spearheading a campaign asking students to give their input. It is very important to me that I get feedback from as many students as possible so that as many students as possible are properly represented. I will ensure that as much advertising as possible is done. I will also ensure that the off-stream members (B-Soc) have the same chance to give feedback as the members on-campus right now. I will do my best to get an email sent to all undergrad students, though if this is not possible I will have to rely on mailing lists I have access to. I plan for there to be discussion at the EngSoc Meeting on Oct. 13th to allow face to face feedback as well. I encourage students who are passionate to write individual feedback submissions to me, though I ask that they are submitted by Oct. 15th.

Thanks for taking the time to read this article, I hope that you can pass along this information and encourage others to submit feedback! If you have any questions please let me know (asoc_vpedu@engmail.uwaterloo.ca)! This input will help shape what the Faculty does over the next 5 years - let's make the future better together!

Just to remind you, go to <http://engsoc.uwaterloo.ca/plan2015> to submit your feedback. Please make sure you're logged in or you won't be able to fill out the form!

New Engineering Options

From Options from Page 1

Similarly, some of the courses required for the present options (such as Water Resources, and Biomechanics) are part of the core curriculum of the Mechanical, Civil, and Systems Design engineering programs.

Many motivated students are already hard at work towards their desired option. Farzana Yusufali, a 2A Nanotechnology Engineering student, has already taken an extra course to fulfill the requirements for a Biochemistry option. "Options let you take advantage of your

degree to a fuller extent," says Yusufali. "It lets me focus my engineering training towards my specific area of interest."

If you want to find out more about taking an option, including a list of courses that you should take, talk to your program director. However, be warned that six courses are a lot: you might have to shuffle around your schedule a bit to make these work, and you might even have to take some courses during one of your co-op terms. If you're ambitious enough to strip away your academic fears, and pursue an option, it's best to start early.

List of New Options that are coming up: Molecular & Cell biology, Biophysics, Biochemistry, Environmental/Ecological Science, Physics (modified), Chemistry, Earth and Environmental Science.

Current List of Options: Biomechanics, Computer Engineering, Environmental Engineering, International Studies in Engineering, Management Sciences, Mathematics, Mechatronics, Physics*, Software Engineering, Statistics, Water Resources.

* Might be modified with the new set of courses coming up.

Voting in Municipal Elections

From Elections from Page 1

Voting on election day is really quite easy. Those living on campus can vote at the Student Life Centre between 10 am and 8 pm on election day (Monday, Oct. 25). If you do not live on campus, you can find out your voting location by accessing http://e-services.waterloo.ca/Voting_Station_Lookup.aspx, and entering your street address. If for some reason you are out of town on the 25th, advanced polling occurs on the 15th and 16th, from 10 am to 6 pm at Waterloo City Center.

Finally, I want to stress that municipal election are very relevant to students. The decisions made in the City Hall affect public transit, libraries, hospitals, police & firefighting, and road maintenance. We, as students, have an important voice in the outcome of this election. So now that you know how to get information, how to vote, and why you should vote, get out there on October 25th and cast your ballot, it really does make a difference.

Waterloo Pins "Gotta Catch 'em All"



MADDY LIDDY
2A NANOTECHNOLOGY

Have you noticed the coloured pins that have been floating around campus? Have you noticed students wearing the "buttons shirts"? They're a part of Waterloo's new "Ideas Start Here" campaign. The goal of this campaign is to

help with the unification of Waterloo's faculties and students, and to promote the university in a new, innovative way off-campus. The pins come in eight different colours, one for each faculty and two for Waterloo's colours. These are, purple for Engineering, teal for AHS, orange for Arts, pink for Math, green for Environment, dark blue for Science and red and yellow for Waterloo's colours. These pins are given out in a "one to wear and one to share" style and are

found in jars distributed all around campus. During orientation week, they were distributed to FOC members, liaisons, residence dons, and other section leaders. They first began distribution at Student Life 101, the event that allows first-years to ask last-minute questions about their program, finances and residences before the start of term. They will continue to be distributed until supplies run out. So go out to school events, find the distribution jars and collect them all!

WatPD Hosts Student Forum



ANJALI GOPAL
2A NANOTECHNOLOGY

Last week, Gordon Stuble, Academic Director of WatPD Engineering, and Judene Pretti, Director of the WatPD program, hosted a student forum about the upcoming WatPD Engineering program. The forum allowed students to voice their concerns about the upcoming WatPD courses.

In the last issue of *The Iron Warrior*, Eric Cousineau, VP Education of EngSoc, wrote a detailed article that described the implementation of the WatPD program. To recap, here are the essentials: WatPD is practically guaranteed to arrive in time for the winter 2011 work term, although University Senate is having a final vote about its implementation in a meeting on October 18th. Once WatPD has been implemented in the engineering department, students will have

3 options:

1. Students who passed PDEng 15 and PDEng 25 by January 2011 can do their remaining 3 courses in PDEng or WatPD.

2. Students who passed PDEng 15 by January, but not 25, can either:

- a. Take PDEng 25, and then follow the choices from option (1)
- b. Take PD 20, PD 21, and then two other PD courses.

3. Students who have not passed any PDEng course by January can either:

- a. Take PDEng 15, PDEng 25, and then follow the choices from option (1)
- b. Go straight to the PD courses (i.e. PD 20, PD 21, and three other PD courses).

However, it should be noted that once a student opts for the "PD" option, the student cannot go back to PDEng.

The student forum had a wealth of information about the WatPD Engineering program, including the structure of the system, and descriptions of the various courses that undergrads have the opportunity to take. In particular, PD 20 will

focus on critical thinking, judgment, and assessment of situations in the work place; PD 21 will build on its precursor, and focus on problem identification and problem solving strategy. Students who have completed PD 20 and 21 (or PDEng 15 and PDEng 25) will have the opportunity to take 3 of the following elective courses for their remaining workterms:

- PD 3 : Communication
- PD 4 : Teamwork
- PD 5 : Project Management
- PD 6 : Problem Solving
- PD 7 : Conflict Resolution

According to WatPD staff, WatPD contains more interactive learning material than PDEng courses. For instance, students taking the upper year PD courses learn through material such as Emotional Intelligence Questionnaires, "What the Experts Say" video clips, and other videos that act out conflicts, and conflict resolution strategies in the workplace. The WatPD staff also had impressive statistics which claimed that over 70% of students (across every faculty) thought

that the workload in the PD courses was manageable. Moreover, over the past year, more than 90% of students passed the PD elective course they took.

WatPD should be implemented by Winter 2011, and PDEng is expected to be removed by Winter 2012. However, enrolment for your next "professional development" course (whether it is PDEng or WatPD-Eng) must be done by mid-October.

Fortunately, WatPD staff have a taped version of the student forum. If you missed the forum, but still want to listen to the WatPD staff's answers to some of your fellow students' questions, be on the lookout for the tape; it should be released sometime next week. For more information about WatPD, including how and when to make your choice between WatPD and PDEng, which WatPD staff you can contact for help, and details about the WatPD course and curriculum, visit the WatPD-Eng website at <http://www.engineering.uwaterloo.ca/watpd-engineering/>.

Who... or What... is GradComm?

GRADUATION COMMITTEE 2011

We are the Graduation Committee, or GradComm. We are 30 of your 4th year friends and classmates. We run events that Waterloo students know and love, and plan the events 4th-year Engineering students look forward to for 5 (or 7) years. And... we have realized that most students don't know what we do, why we do it, or how we go about getting it done.

So, allow us to introduce ourselves! We are the GradComm Co-Chairs for the class of 2011: Kirsten Hoedlmoser, Noel McGregor, Nadine Ferguson, and Jessica Friesen. We were elected by our 4th year peers in December and January, and it's our job to oversee GradComm and manage our team of 30 directors.

GradComm is a committee comprised solely of 4th-year engineering students, so every year the group is completely different from the last. We are not elected by, or associated with, the Engineering Society and their events (although many

of us are actively involved in EngSoc separately). Mary Bland, the Engineering Society Corporate Manager, generously donates her free time to helping GradComm get their job done.

The GradComm mandate is to:

1) Raise money for graduating class events and initiatives, including GradBall, the Iron Ring Stag (IRS), and the Yearbook.

2) Provide an avenue for lower years to meet upper year and graduating students.

The first point in our mandate is what sets us apart from most other engineering-related groups. One of our purposes is to fundraise, and therefore our events are tailored to raise money to go towards events and initiatives like GradBall, IRS, the Yearbook, etc. We try our best to make our fundraisers appeal to as many people as possible. For example, over 600 students have participated in Pub Crawls, multiple times. If you have an idea that you think would appeal to a large number of students, please send

us an email! We'd love to work with you to see that event happen. We also run events like Wednesday pizza sales, 50/50 draws, out-of-town bus trips, and brewery tours. We do not make money off of leather jacket sales, the C&D, or any service offered by EngSoc.

IRS and GradBall are two events that many engineering students look forward to their entire undergrad career. IRS is an event that takes place on the day you receive your Iron Ring. It's a chance to party with your graduating class, enjoy some good food, and is also your first chance to touch our engineering mascot: the TOOL. GradBall is a formal event at the end of the winter term, usually in mid-March. Grads enjoy a 4-course meal, complimentary wine with dinner, a photo with their date or friends by a professional photographer, a dance, and a gift from GradComm.

Some of you may now be wondering if any of these funds go back to support other engineering students. The answer to this: the Grad Gift. All of Grad-

Comm's leftover funds - every penny - goes towards a gift that will be used for years to come by current and future UW Engineering students. Past examples of gifts include the speaker system in POETS, the AV equipment used at numerous EngSoc and engineering-related events, and accessibility renovations to Engineering buildings.

We hope this helped you understand GradComm a little bit better. If you want more information about GradComm or want to contact us, check out our website: gradcomm2011.wordpress.com. Common questions about events like GradBall and IRS are answered on the "FAQ" page. We can also be reached at gradcomm2011@gmail.com, and you are always more than welcome to stop one of us or our directors in the hall to chat.

We'd like to thank everyone for the great support we have gotten so far! We look forward to seeing more and more new faces at our events this Fall and Winter.

Kirsten, Noel, Nadine, and Jessica



Du bureau du Président



TIM BANDURA
PRESIDENT

Whew! Well under way here as we proceed into Thanksgiving week. I hope everything is going smoothly for everyone so far! We're off to a fairly good start but keep an eye out because there's a lot more to come! Unfortunately, we're working through a couple of bank difficulties on signing authority, but we hope to have it

wrapped up this week (if not already by the time of publication). I apologize for any inconveniences. If you need reimbursement immediately, please contact me (asoc_prez@engmail.uwaterloo.ca), and we will work something out.

Here's a brief summary of a few events from the past two or three weeks. September 25th was the Homecoming weekend, and many former Waterloo Grads were around. All in all a very interesting night! Heard stories from some of the first classes to ever see the TOOL and even ran into one of my bosses from a co-op term!

Meeting #2 was on Wednesday the 29th. Dean Sedra was in attendance and provided an update on the UAE Campus and on the wrap up of the Vision 2010 plan. A full report of the Vision 2010 plan will be set up on the Dean of Engineering's website in the near future for all students to review. The Dean is looking for input on the next five year plan; contact Eric Cousineau (asoc_vpedu@engmail.uwaterloo.ca) as he is co-ordinating student submissions.

Upcoming events include our next Council Meeting on Wednesday the 13th,

the grand opening of E5 on October 19th, and the rest of the executives and I will be hopefully having a meeting with the Dean on the 22nd. Meeting #3 will have the presentations for anyone nominated for the Paul and Paula Plummer Award. This is a great chance to see the accomplishments of your fellow students. As always, there will be free food after! POETS is also licensed for the hour after the meeting! If you have any questions you'd like us to discuss with Dean Sedra in our meeting, feel free to talk to one of the executives.

Au revoir, Tim

WEEF Proposal Time!



PRAVEEN ARICHANDRAN
WEEF DIRECTOR

It's been a great start to the term for WEEF! Donation returns closed on October 1st and are now being processed by finance. Look out for participation rates as well as the new total for our capital fund in the next issue of *The Iron Warrior*.

This term WEEF will be allocating \$60 000 in funding! Proposals for funding are due October 22nd. Guidelines and forms can be found online at http://www.weef.uwaterloo.ca/proposal_form.html. Each term, funding allocation decisions are made by WEEF Funding Council. Each class gets one vote on Funding Council and students

decide where all of the funding goes each term. A list of Class Reps is available online at <http://www.weef.uwaterloo.ca/People.html>. Please ensure that your class is represented so that you have a say in how our funding is allocated.

The grand opening of Engineering 5 will be on October 19th at 10:00am. Please come out and join in the festivities. In addition to our new world-class Student Design Centre, E5 will be the new home of the WEEF office.

KEY DATES:

- Oct 19: E5 Grand Opening
 - Oct 22: Proposals are due
 - Nov 1/2: Proposal Presentations
 - Nov 4: Funding Council makes Decisions
- As always, feel free to contact me with questions, comments or concerns at weef@engmail.uwaterloo.ca.

OMG Look: Events!!!



SEAN WALSH
VP INTERNAL

Hey everyone and welcome back to the best section of *The Iron Warrior*! There isn't a whole lot to update you on but I'll do my best to keep you interested and on the edge of your seat! BE MORE EXCITED!!!

There was an excellent turn out for Engnuity and from what I could see the thrones were looking pretty sturdy as well Frosh Mentoring has been hosting highly successful GLEE nights in POETS on Tuesdays. TalEng last Wednesday was great, thanks to everyone who came out and an extra special thanks to everyone who pre-

formed, excluding exec, we need to work on our singing.

As for upcoming events I look forward to seeing all of the 2013's who are going to Laser Quest tomorrow and I wish the 2012's the best of luck in their 500ish-days-till-IRS-Andre this Friday in POETS! EngPlay has its cast and be on the lookout for Curling Tickets (happening Nov. 6th).

My final point is with regards to my "POLE". The response from last week was overwhelming! Just kidding. Actually there wasn't much interest in responding so I have decided to forego that idea for now and look into other methods of gaining feedback on EngSoc and its events. I will of course keep you posted.

Enjoy Oktoberfest!!

Sean Walsh

Vice President Internal

Orientation Week and Student Retention



JAY SHAH
SENATOR

There hasn't been another Senate meeting yet, so I don't have anything bulky to report. However, the October 18th Senate meeting's agenda has just been released, and contains a very in-depth report on student retention (pages A28-A47) titled "Undergraduate Student Retention Issues, Opportunities and Initiatives". I have not yet been able to review it thoroughly, but have skimmed the relevant sections. I highly recommend you check it out, at least to skim the report on student retention. There is also a really interesting report on the newly proposed "Associate Provost Student Services" and the newly proposed "Office of Student Success" (A17-A27). The full senate agenda can be found here: <http://www.secretariat.uwaterloo.ca/governance/Senate/20101018oagsen.pdf>

Regarding the Transition Program / Orientation changes, there are still a variety of ideas/options being considered. All the Student Senators are trying to get as much feedback

as possible for the next time we meet with Bud Walker and crew to discuss/learn more. I have learned from Bud that it is more likely that **upper year students will not start classes until the Monday after Labour Day** under the new Transition Plan. Considering much of the feedback I have received regarding the new transition program, I imagine that students will be quite happy about this development. I am not sure how this will play into the 60 teaching day issue, or how the Faculty will respond to having first-year professors starting earlier than non-first-year professors.

I can now also report that the **2008-2009 retention of first year students at UWaterloo was 89%** (recall that retention is a pretty significant driving factor in regards to the new student transition program reported on last time). This is behind Queen's (94.9%), Western (91.5%), UofT (90.3%), UGuelph (90.4%) and WLU (89.4%), McGill (91.6%). The goal is to raise this rate 1% annually to 93% which would position us to be 2nd in Ontario (and then we would continue to increase it, at a slower pace). The increase (comparing 2001 to 2008) in withdraw rates in Engineering after year one is second only

to Math at UW. The increase (comparing 2001 to 2008) in withdraw rate in Engineering after the year three is the highest at UW.

RECOMMENDATIONS FROM THE REPORT OF STUDENT RETENTION:

The committee recommends that central units of Waterloo in 2010-2011 take action to:

- (1) improve provision of accurate and realistic information about support services to undergraduate students
- (2) provide a one-stop portal service, especially to help students who decide to change academic programs
- (3) ensure specific needs of international visa students are identified, and appropriate support is available
- (4) initiate exit interviews for all students who leave Waterloo before completing a degree, as well as for a sample of students who graduate from Waterloo, to inquire about issues that challenged or supported their retention

The committee also recommends that Faculties in 2010-2011 take action to:

- (1) improve provision of accurate and realistic information about Faculty-specific support services to their undergraduate stu-

dents. This will require coordination with central units providing other information

(2) introduce early warning and intervention initiatives to identify and help students at risk in their academic programs

(3) facilitate a student focused learning environment, including enhanced student engagement. A key component will be to provide more and enhanced mentoring, by faculty, staff and senior undergraduate students.

Finally, the committee recommends that Waterloo needs to give attention to

- (1) developing capacity for routinely monitoring progress related to retention
- (2) designating responsibility for oversight for retention management
- (3) determining incremental resources required to allow enhancement of existing support or introduction of new support activities
- (4) designing specific activities to deal with retention issues

The more I hear from you the better I'll be able to represent all of us! Shoot me an email at jashah@engmail with concerns/questions/ideas!

Good luck on midterms! and be glad we don't have any on Saturday :)

Upcoming Events Calendar

Wednesday October 13	Thursday October 14	Friday October 15	Saturday October 16	Sunday October 17	Monday October 18	Tuesday October 19	Check out up-to-the-day event postings on the EngSoc website at engsoc.uwaterloo.ca
EngSoc Council Meeting #5 5:30 PM CPH 3607	2013 Spirit - Laser Quest 6:30 PM	2012 Spirit - 500ish days 'till IRS	Enrollment Appointments End			Open Class Enrollment Begins 10:00 AM Grand Opening of E5	
Wednesday October 20	Thursday October 21	Friday October 22	Saturday October 23	Sunday October 24	Monday October 25	Tuesday October 26	
Academic Rep Meeting #2	Charity - Pancake Breakfast 8:00 AM CPH Foyer	GradComm Pubcrawl #2	Fall 2010 Convocation				
Wednesday October 27	Thursday October 28	Friday October 29	Saturday October 30	Sunday October 31	Monday November 1	Tuesday November 2	 
EngSoc Hockey 9:00 PM CIF		MOT		Halloween			

WatPD Eng Forum, CSC, and More!



**ERIC
COUSINEAU**
VP EDUCATION

Hello again everyone! Things have been busy in VP-Ed world since the last issue of the IW, so I'll let you know what's new. I've attended quite a few meetings, and communicated with a lot of people. I am also working on a student submission to Plan 2015, so be sure to read my other article for information about that!

On Oct. 7th WatPD Engineering hosted a Student Forum to inform students about

the new program and to answer their questions. Students asked really good questions, and Dr. Gord Stublely (Academic Director, WatPD Engineering) and Judene Pretti (Director, WatPD) had some really insightful answers. I encourage you to visit the program's new website to learn more! You will also find a recording of the forum including both the presentation and the question period. Go to: www.watpd-engineering.uwaterloo.ca

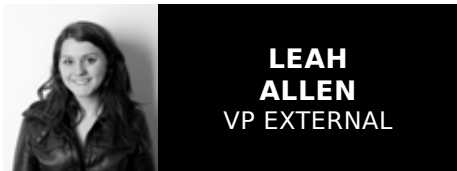
I attended the Co-op Student's Council (CSC) meeting on Oct. 6th and had the opportunity to discuss Co-op issues with Peggy Jarvie (Executive Director, CECS) and Rocco Fondacaro (Director, Student and

Faculty Relations). This Council is chaired by the VP Education of FEDS, and has its membership composed of Student Reps from all faculties. We were given an update on Waterloo Works (the upcoming replacement to Jobmine), which is set to launch in Spring 2011. Some features to note are: pdf resumes, better searching and screening capabilities, more uptime (available after midnight, yay!), easier management of documents (resumes and cover letters), and even a better matching algorithm to increase matches in first round. I also found out that the real reason Jobmine closes at midnight is due to technological limitations of the software itself. It looks like we

can look forward to lots of new stuff with Waterloo Works!

Other news include Academic Rep Meeting #2, which will happen on Oct. 20th, details will make their way to Academic Reps soon. Resume critiques were a huge success in September, there will be another session run at the end of the month or at the beginning of November. I have a SUC Meeting on Oct. 12th and CEC Meeting on Oct. 14th, at the time of press neither meeting has occurred yet. I'll update on SUC at the council meeting on the 13th. Thanks for reading my exec report, please remember to read my other article to learn about Plan 2015 and how to give feedback on it!

Exceptionally Epic External Endeavours



**LEAH
ALLEN**
VP EXTERNAL

Hey Everybody,

Hope everyone has settled into their classes, and is gearing up for midterms. Not too too much to report on the VP External front, but there have been some recent developments.

First of all, Kevin Ling (EngSoc B VP External) and I travelled to Montreal two weekends ago for the Canadian Federation of Engineering Students President's Meeting (CFES PM). There were a lot of great discussions which will be summarized in my conference report (located on the Eng-

Soc website) that will hopefully be up by the time this issue comes out. The main development is regarding students studying in non-accredited engineering programs at schools who are already members of CFES. This has caused problems in the past, one of them being that those students were not allowed to compete in the Canadian Engineering Competition. Now those students are also considered members of CFES and so they can participate in CEC! WHOO!

Professional Engineering of Ontario-Student Conference delegates have been chosen. They will be travelling to the University of Toronto on November 12th to partake in workshop sessions, listen to guest speakers and engage in networking opportunities.

One charity event that is approaching

quite fast is Halloween for Hunger. The purpose of this event is to dress up and collect canned goods for the Waterloo Food Bank on Halloween night (5 pm). If you are interested please sign up either your group (6-8 people), or yourself (free agent) on the orifice door. This event will be ending early in the night, giving you a chance to partake in other activities later on.

Attention all students starting their fourth year design projects! There will be a very beneficial hands-on interactive tutorial session demonstrating how to use National Instrument's LabVIEW prototype development. It will be held on Monday, October 18th at 5:30 pm in the Wedge lab and you will receive a free copy of the LabView software. Discover firsthand how LabVIEW can help simplify your design

projects for virtually all of your technical computing needs including electronics design, controls and mechatronics, and measurement and analysis. This session is first come, first serve, so please be there on time.

Applications to attend CFES Congress which will be held in St. John's, Newfoundland will be coming out shortly. EngSoc 'A' will be taking 2-3 delegates for this conference, although there will be a cost to attend (yet to be determined). If you are interested in attending, please expect a call for applications over the mailing list in the next couple weeks.

That's all for now, if you have any questions please contact me.

<3 Leah
asoc_vpext@engmail.uwaterloo.ca

Budgets Finished and Exec Cars are Interesting...



**MARC
TAN**
VP FINANCE

So it's my third exec report, the streak of me being in office continues. Currently, I am in a car driving home on the 401 with your off-stream VPEx, the SciSoc VPAF, and a ginger, and it is quite a full car. The company is good but traffic is awful, I would know, I analyze traffic all the time. Kevin Ling thinks that traffic in Toronto is better than the traffic between Milton and Waterloo, the best logic ever... Michael Hughes, our resident ginger, thinks that he sees Jesus everywhere, so it seems the ride is really getting to our heads! And Claire Coombs the SciSoc VPAF brought fuzzy peaches and they are amazing right now. Fun fact of the trip, VMS signs state that you can get demerit points for not wearing seat belt, watch out!

More importantly there have been a lot of fun things in the last 2 weeks. I hope you enjoyed our fantastic amazing exec act at TalEng, and hopefully you won't boo us off next term. Novelties sales at Alumni Day were amazing, we sold a lot of items (like bowling shirts) and met many interesting alumni who were very enthusiastic about Novelties. Also during Council, we approved a number of capital purchases, these include A BUTTON MAKER, a spanking new piano keyboard, and a computer upgrade for the POETS COMPUTER WHICH WILL BE AMAZING! Also Council approved the budget which is listed below and \$10,000 in DONATIONS, so get those proposals in to me by November 1st to get in on this awesome money, if you have any question don't hesitate to email me. Office Supplies should hopefully be in next week, I should be able to get a ride to wholesale and get those to the Orifice. That's it from me for now, stay tuned for more awesome reports.

Fall 2010 Budget			
Directorships	Budgeted	Directorships	Budgeted
Estimated Income		Internal	
Photocopies	\$1,000.00	Arts	\$78.00
Student Fees	\$53,366.25	Archineering	\$500.00
Total	\$54,366.25	Athletics: Curling	\$1,250.00
Fixed Costs		Athletics: Mountain Biking	\$100.00
Bank Charges, Payroll, Utilities, Office		Athletics: General	\$865.00
Total	\$20,000.00	Engenuity	\$100.00
Expenses		Eng Play	\$1,232.00
Exec	\$1,000.00	Exchange	\$50.00
President	\$1,000.00	Frosh Mentoring	\$450.00
VP Finance	\$500.00	Genius Bowl	\$500.00
VP Education	\$500.00	Halloween	\$400.00
VP External	\$500.00	Historian	
VP Internal	\$500.00	Jazz Band	\$1,600.00
Total	\$3,000.00	Music	\$860.00
Directorships		P**5	\$1,500.00
Prez		Remembrance day	\$50.00
POETS Manager	\$1,620.00	Scunt	\$600.00
Exec Review Committee	\$200.00	Semi Formal	\$1,300.00
Speaker	\$3,865.00	Special Events	
Prez Subtotal	\$5,685.00	TalEng	\$1,325.00
Education		TSN - EOT Video	
Academic Rep Advisors	\$810.00	Year Spirit 2011	\$150.00
Resume Critiques	\$320.00	Year Spirit 2012	\$154.00
Mental Health Awareness	\$81.00	Year Spirit 2013	\$200.00
Education Subtotal	\$1,211.00	Year Spirit 2014	\$250.00
External		Year Spirit 2015	\$200.00
Alumni Officer		Internal Subtotal	\$13,714.00
Charities	\$1,500.00		
Competitions	\$1,700.00	Total	\$26,129.85
Engineering Outreach	\$50.00		
EWB	\$100.00	Donations	\$8,000.00
Santa Clause Parade	\$529.85	Gradcom	\$500.00
Shadow Day	\$1,140.00	FOC	\$500.00
WheelChair Bball		The Iron Warrior	\$500.00
WIE	\$500.00	WEEF	\$500.00
External Subtotal	\$5,519.85	Net	-\$4,763.60

TED Talks - From Engines to Emperors: A Robot's Tale



BRENT MCCLEAVE
1A NANOTECHNOLOGY

As engineers, we are an inquisitive bunch. We spend much of our time pondering many of the same questions. How does this machine work? How can I improve this design? Just how much time do we have before Earth is conquered by robots? Well, Dr. Dennis Hong and his team at RoMeLa (the Robotics and Mechanisms Laboratory at Virginia Tech) have provided an innovative, terrifying, and altogether jaw-dropping answer to that last question at a T.E.D. conference during the September of last year. Dr. Hong discussed seven remarkably advanced robotic prototypes, or “species” that his team at RoMeLa have been developing to widen the range of robotic action, locomotion and intelligence.

The first robot species discussed was a tripod robot named STriDER (Self-excited Tripodal Dynamic Experimental Robot). Rather than using complex mechanisms to move each of its three legs with precision, STriDER locomotes using the principle of passive dynamics. In essence, STriDER moves forward in a way similar to humans, by swinging its leg forward and using its momentum to have the leg land in front of it. The two front legs are used as support while the body flips vertically (around the axis between the two front legs), swinging STriDER's hind leg forward, beneath the body to a position in front of the other legs.

Second is IMPASS (Intelligent Mobility Platform with Actuated Spoke System), a robot which locomotes with unique “legged wheels”. IMPASS has two spoked wheels which have no surrounding rim. Instead, the three spokes which extend on both sides of the wheel can move in and out, allowing IMPASS to have a long reach, as well as increasing its height to climb above high obstacles. Rotating the wheels pushes the spoke into the floor, which pushes IMPASS forward or upward, depending on the surface that it is on. In addition, it can avoid differential steering (counter-rotating wheels) despite the wheels being on the same axle by withdrawing the spokes on the inside wheel, reducing its turning radius.

Third is CLIMBeR (Cable-suspended Limbed Intelligent Matching Behaviour Robot), which when supported by a winch, can support itself with its three legs against almost any inclined and unstructured ter-

rain, and climb it. In real time, it can calculate the force distribution of its limbs, and determine precise locations to place its legs in order to prevent slipping and sliding, allowing CLIMBeR to scale walls with relative ease.

Fourth is MARS (Multi-Appendage Robotic System), a fairly straightforward all-terrain six-legged walker. What is unique about it, however, is that it can adjust its gait based on the environment it is placed in for more efficient locomotion. The example shown was on a coastline, where MARS was able to compensate for sand grain size, as well as the moisture content of the sand.

Fifth is RAPHaEL (Robotic Air Powered Hand with Elastic Ligaments), a robotic hand which operates using compressed air instead of electromechanical actuators and motors. By adjusting the airflow to the digits, the force applied by these digits will vary, making RAPHaEL strong enough to crush pop cans, but also able to hold very delicate objects such as light bulbs and raw eggs. Most prosthetic hands are extraordinarily expensive, costing thousands of dollars or more. In contrast, the RAPHaEL prototype cost only \$200 to make.

Sixth is HyDRAS (Hyper Degrees-of-freedom Robotic Articulated Serpentine), a family of snake-like robots which move by mimicking the movements of an optical fibre, which is moved around by a human operator. This remarkably simple and intuitive user interface allows HyDRAS to perform tasks ranging from picking up and dropping objects to potentially disarming bombs without putting humans in harm's way.

Seventh is DARwIn (Dynamic Anthropomorphic Robot with Intelligence). DARwIn is a series of fully autonomous humanoid robots, capable of a very wide range of motions, including but not limited to playing a game of soccer. DARwIn can look for the ball, walk up to it, kick it, and even dive to block it as a goalie. Dennis Hong and his team hope that it will participate in and place first in RoboCup, an autonomous humanoid robot soccer league.

During his presentation at T.E.D., Dr. Hong has inspired many with the RoMeLa team's developments, and has broadened our perspective of robots, changing them from being walking chrome toasters to being as unique and diverse as life itself. These revolutionary ideas will help bring robots into the real world from science fiction, and I for one will welcome our robot overlords with open arms.

Thanksgiving Food Hangover



ALISON LEE
2A NANOTECHNOLOGY

Thanksgiving may only last a week-end, but the food keeps on giving for days (and weeks) to come. Large volumes of turkey, stuffing, yams, pie, bread, and whatever else your friends or relatives cook in extreme excess, wait patiently in Tupperware for you to eat for breakfast, lunch, and dinner. Whether you go home for the long weekend or get together with friends on campus, most people tend to feast on something during Thanksgiving, leaving them with a lot of extra food. A lot.

Why is this a problem? It's not, really, but if you're like me at Thanksgiving and end up more stuffed than the turkey by the end of it, then you too will feel food-hungover the morning after. Would you follow a night at a kegger with a breakfast beer? Then why do we make ourselves eat Thanksgiving leftovers ad nauseum? Okay, it's not that bad – pumpkin pie is delicious no matter what – but there ARE ways to creatively deal with your leftovers to make the excess food enjoyable the whole way through. After all, no student should ever waste food.

There are many delicious recipes on the internet beyond a turkey club. The usuals are sandwiches, bakes, stews and soups. The more bizarre ideas include: mashed potato tacos, turkey omelets, turkey schnitzel, stuffing and mashed potato fritters, Thanksgiving sushi, samosas, stuffed peppers, various curries, candied yam cake, and turkey cobbler. The Iron Chef Turkey Challenge episode even saw Turnip & Foie Gras Ravioli, although not many people have left over foie gras...or time to make ravioli. Regardless, it's always fun to try your own Iron Chef creation. Even if it's inedible, at least it's a

good story. A friend once made chocolate fondue for turkey, stuffing, and the trimmings. Other ones I've heard are savoury turkey protein shakes, snowman-shaped stuffing with turkey trees, mixed drinks with cranberry sauce, and the all-ambiguous “surprise fried rice”.

Now, back to being practical: if you still have leftovers kicking around, you can definitely freeze them! With midterms creeping up, a container with a full meal that you can throw in the microwave can save lives. A freezer also relieves the pressure of finishing everything before it goes bad, or the pressure to hurry up so you can eat other things again. Within a couple of weeks your leftovers will taste great again and you'll appreciate a meal that's not so on-the-go.

Finally, if you're afraid of the kitchen but still appreciate some variety to your leftover diet, get together with friends and swap food. Everyone cooks turkey differently. Some cook ham, or beef, or vegetarian deliciousness. Leftover pot-lucks may result in more food hangover, but at least it will feel different from the last one!

The obvious way to beat a Thanksgiving hangover is to not eat so much, but who wants to do that when the food is so good? Exercising a lot a couple of hours before the meal will get your appetite and metabolism up, not to mention keep the food baby at bay. Other options are to eat slowly (again, this can be challenging when there is pie in front of you) or just to sit down and let the turkey serotonin settle in for a good while before heading to bed to sleep it off.

I apologize if it's too late and you are reading this article as you eat your twentieth and final turkey sandwich. However, do keep this in mind for next year, or find a friend who is still struggling with leftovers and offer to “help”. Whatever your style, good luck as you embark on your Thanksgiving food adventures.

The Fall 2010

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prof Quotes

“When dealing with computers, I think I know why people become alcoholics”
--Dr E. Daub, NE 224

“Loving is knowing, you always love the music you know, even if it's Lady Gaga”
--Dr. E. Prouzet, NE 225

“I've been up since 4:30am, not in the fun drinking way, the crying baby way”
--Dr. D. Wright, ECE241

“The transient is like a hobo, it does similar things. A hobo would hop on a boxcar and go eat some canned beans somewhere.”
-- Dr. D. Wright, ECE241

“If a function f is strictly monotonic, so it's boring”
-- Prof. Zoran Miskovic, MATH116

“We could do away with these if we just got rid of the artsies” (in response to the overhead projector being in the way)
-- Prof. Douglas Harder, ECE204

“What goes in, must come out.”
-- M. Robinson, CHE200

Send in your profQuotes to: iwarrior@engmail.uwaterloo.ca

the IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

VOLUME 27 ISSUE 13 | WEDNESDAY, OCTOBER 11, 2006

From the Iron Archives

"The TOOL", Maclean's Rankings, Cellphones and New Banners



**ANGELO
ALAIMO**
3N ELECTRICAL

October 2, 1990 - Fall 1990, Issue 2

We all know our engineering mascot, the 60" Ridgid Pipe wrench, as "The TOOL". However, you may not know that previously, it was known as "The RIDGID Tool". According to an opinion article written by Steve Rayson titled "TOOL Name Change 'Undemocratic'", the name change came at a request by then Engineering Dean, Dr. Bill Lennox, who informed then EngSoc President, Jay Gibson, that Administration had questioned the appropriateness of "The RIDGID Tool".

After being informed by the Dean, a discussion amongst the EngSoc executive resulted in the name "The TOOL". The purpose of the opinion article was to inform the engineering student body that a discussion just within exec was not an appropriate process to change the name given that it was not part of the executive candidates platform during their election. Rayson saw this process as undemocratic and put forth to re-evaluate the society's image in "an open and reflection forum of discussion".

Towards the end of the article, Rayson suggests to motion the name change null and void while soliciting suggestions for a new name of the mascot. After a special committee reviews the submissions, a referendum should be held to pick the new name of the mascot. I'm not sure if

the society executive decided to scrap the name change in favour of a referendum, but we definitely do know that if the referendum was in fact held. "The TOOL" was the name that did result from its outcome.

October 13, 1995 - Fall 1995, Issue 2

1995 was another year the world revolved around the sun, and it was also another year for Waterloo to top Maclean's University Rankings. Rod Cave, 4A Electrical, questioned what exactly Waterloo was #1 for. I've read many old Iron Warrior newspapers we are so lucky to have in our archives, and I've noticed a trend of the University always topping the list of University rankings within the country year after year but students always questioning the validity of these rankings based on their personal experience - and the ranking survey methodology.

According to Cave, the first Maclean's ranking was based on a survey of student opinion which led to Waterloo ranking 22 out of approximately 47 Universities. By 1995, but not necessarily 1995, the survey methodology had changed to be a opinion survey of CEOs, deans of other universities, high school counselors, TV anchors, and the like.

Cave argues that the rankings show Waterloo show it produces good employees for employers who need people to work right out of the box. He then points out in the article that if the rankings are to continue to be a result of non-student opinion, our education will be tailored to appease those who do rank Waterloo high on the survey and not to the student's best interest.

October 13, 2000 - Fall 2000, Issue 2

Cell phone use today has penetrated society like a pandemic. Almost everyone these days has a cell phone and uses it very often, and use will only increase as the trend toward smartphones continues to increase at an exponential rate. Matt Gagliardi, 2A Mechanical, submitted an opinion piece and did not hide the fact he was about to rant about cell phone use in the society of the year 2000.

In his first sentence after the words "Begin Rant", he doesn't hesitate to write "Cell phones are the bane of human existence". For his entire article, he questions the purpose of a cell phone by asking what people did to communicate before their invention and why it was so important to be able to receive a phone call anywhere during anytime. He even points to the fact phone manufacturers have made it hard to turn phones off by hiding the true "off" of cell phones behind clumsy menus.

Gagliardi points to a experience he had during a trip to Canada's Wonderland where he observed two 12-year-old boys emailing each other on their phones while right beside each other. After reading that section, I immediately paralleled his experience to my sometimes obsessive use of my BlackBerry. Wait.. I was 12 in 2000... Was that me he observed at Canada's Wonderland 10 years ago?

Even though Gagliardi does not like cell phones, he does point to their utility as a way to call for help when stuck with a broken car "hours from nowhere". He ensured his readers the only time he calls from his phone is when his car is pulled

over on the side of the road which I feel everyone should do today.

October 11, 2006 - Fall 2006, Issue 2

You may have noticed we kinda changed the look of this paper. The change comes in the form of updated fonts and different organization. Change is something that is not new with The Iron Warrior - we're 30 years old! The last major change of the newspaper came in 2007 to the look you mostly see today. A new banner, and a revamped layout. The last banner, which is the one you see right above this edition's Iron Archives, is the last one used from 2000-2006.

Back in 2006, the current Editor, Jaelyn Sharpe, wrote in a letter about talk to revamp the look of the newspaper. She clearly states in her first paragraph, "As Editor-In-Chief, I'm rather partial to keeping the things the way they are." She writes about all the changes the paper had incurred, especially the banners over the paper's history. She wonders if a change would lead to a destabilisation of equilibrium which would cause the paper to end up as the preferred packing material for all students.

She comments about the banner at the time and how it was nothing special but that could be a strength as no one would love it or hate it. She closes with a thought about the worthiness of keeping the current banner as within five years, any change would long be forgotten and new look will be as beloved and belittled as the current one. The paper did change the banner to the current one you see today the following winter 2007.

Recommended CSE

MICHAEL NEW
3B CIVIL

Psych 101

My favorite CSE was probably Psych101, *Introduction to Psychology*. The course was very interesting and the prof (I think his name was Professor Ennis) made the lectures seem like a stand-up comedy. I got to take part in some cool experiments and I learned a lot about how the human mind works. To top it off, it's a very easy course. If you go to class and pay attention you will get a good mark. I would definitely recommend this course to anyone. 72!

MADDY LIDDY
2A NANOTECHNOLOGY

Music 240

Intro to Jazz begins with African traditional music. It goes through how jazz has transformed throughout history until it reaches the present day. Each class, you will look at a specific time period and genre of jazz. You'll learn about notable artists of the era and how they used their style to shape that era and, eventually, present day jazz. This class has an optional presentation that you may do about an artist, instrument or era. It also involves several listening tests that have you identify songs from a set playlist. You also have to attend

two or three concerts and write reviews based on them. There is no midterm, and if you complete the presentation the final exam is only worth 20%. This class is good if you like to listen to a lot of jazz, learn about history and find out how notable people change and shape music in the present day.

AMANDA LEDUC
3B MANAGEMENT

Anth102

Not only is Anth102, *Introduction to Social and Cultural Anthropology*, actually really interesting, it requires virtually no work. With three 1hr lectures per week, two of which the prof talks about anthropology and his family drama/gossip and the third he uses to show movies. How could one go wrong? The only annoying part is the few self-important artsies that feel the need to spend five minutes talking in circles about something using too many big words then get to the question. I swear nobody, not even the prof, knows that the hell they are asking. I suppose there will always be a few of them who feel the need to sound smart asking an incredibly detailed and irrelevant questions. Despite this, I would still highly recommend the course, best List A CSE available!

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Advice for Chems accompanied by a Burger



**LYDIA
TERISNO**
1A CHEMICAL

Imagine a great, sunny day with sizzling cheeseburger (or veggie burger) in your right hand and a cold pop in your left hand. Now, add in your professors to that picture; they are sitting right in front of you and enjoying burgers as well. Sounds like a dream? No, it actually came true in Meet the Profs in POETS Patio last Thursday. It was an event arranged by Chemical Engineering Society where we could talk to our professors in a relaxed situation, something atypical in a lecture. They made jokes, explained their research, and gave important advice to us.

I would not be able to picture my strictest professor in class cracking a joke with students if I had not been there. "Have you ever heard of a spit test? A Chemical Engineering student had a work term in Labrador and, yes, it was the winter term. Basically, the spit test is just if you spit outside and it freezes before reaching the ground, you will not need to go to work that day. Reason: it is -40°C outside!" The professor laughed, and that was the first time I saw him without his serious face.

Passionate about their research - that was the perfect phrase to describe them as they started explaining their projects. The engineer inside of me was excited for the research details until mustard starting flowing down my palm. Whoops, back to the reality, got to finish the burger! In addition to the jokes and research details, the first years, especially the 4-streamers having to face the very first work term in January, received relieving advice from the professors:

- Do not get demoralized when you do not get an interview on the first round. At the end, everyone will end up with a job.

- Focus on your midterms and after that, you can try to join the student teams. The teams are great places to improve your skills and pad up your resume.

- Do not hesitate to apply for jobs in Fort McMurray or Labrador even if you are going there for winter term. You might get the most awesome work term there.

Even though it was just a short talk during lunch time, it was a great time indeed. To have a casual chat with the professors instead of calculus problems formed the best lunch this week. For fellow Chemical and Nanotechnology Engineers that missed the event, no worries! I have summarized the advice above; however, you missed the moment when your professors laughed.

HyperSonic Sound



**ANJALI
GOPAL**
2A NANOTECHNOLOGY

Imagine light: in its most basic form, it will spread out in all directions until it reaches a point of contact (for instance, your eye). But since the beginning of civilization, there has been an attempt to control light: to reflect it, to block it, to shape it. With the advent of such technology, we've been able to create lasers, computers, x-ray machines - the achievements which stem from the ability to control light are enormous.

Now, imagine sound: we've had to put up with a lot of crap from sound, when you compare it to light. We need several layers of thick material to soundproof a room. Any 'reflection' of sound - an echo - is weak and feeble at best. And we can't 'shine a sound' at someone the way we can 'shine a light'.

All of that is about to change with the invention of HyperSonic Sound.

Invented by Woody Norris (the same guy who invented the popular Jabber headsets for cellphones), HyperSonic Sound is like a 'sound spotlight'. However, it doesn't just direct sound to one (and only one) location; it gives the impression that the sound is being created at that location. And you don't hear it until it hits you.

How is this possible? Sound is a pressure wave. On a speaker, sound is made on the face of the speaker. Hypersonic sound, however, is made at billions of points along a column of air. Aim it at someone's ear, and it sounds like it was made right next to the ear.

"That means you go to a rock concert or a symphony, and the guy in the front row gets the same level as the guy in the back row, now, all of a sudden," said Norris in a recent talk at TED. It can also work in everyday applications—like cars, for instance. You can have one stereo system in the front for the parents, and a DVD player in the back for the kids. There's no hassle or fuss of dragging headphones around.

It doesn't stop there. With this new ability to direct sound, "we create silence as much as we create sound," claims Norris. "ATMs that talk to you; nobody else hears it. Sit in bed, two in the morning, watch TV; your spouse, or someone, is next to you, asleep. Doesn't hear it. Doesn't wake up."

Perhaps in a few years, you too will have access to the wonder that is hyper-sonic sound. One day, you might be able to sit in a lecture with a hyper-sonic sound system that sends the voice of your professor right to your ear—or, perhaps preferably, a system that directs your prof's voice away so that you can really sleep in peace. Imagine the possibilities.

Commonwealth Games 2010 - Bads & Goods?



**AMRITA
YASIN**
4A CHEMICAL

Almost everyone has heard of the 19th Commonwealth Games 2010 being held in New Delhi. With a participation of almost 7000 athletes from the 71 commonwealth nations, these games featured Archery, Aquatics, Athletics, Badminton, Boxing, Cycling, Gymnastics, Hockey, Lawn Bowls, Netball, Rugby 7s, Shooting, Squash, Table Tennis, Tennis, Weightlifting and Wrestling. Athletics, Swimming, Powerlifting and Table Tennis events have also been organized for Para-athletes. Being held on October 3rd - 14th, these games have attracted attention majorly for the malfunctioning at different levels.

Budget

According to an Indian News source the budget had risen from 22,000 crore Indian Rupees (~5 billion USD) to 30,000 crore Indian rupees (~6.8 billion USD) by April 2010. The increase in budget can be attrib-

uted to delay in projects, frequent changes in plans, and the emergence of unplanned projects such as streetscaping. In addition, the government used the Games as an excuse to increase the infrastructure in the city. Hence money allocated for the Games was used for projects which bear no direct relationship with the Games.

Corruption in tenders and illegal cash flows had been making the headlines too. 16 game related projects had fake or suspicious quality certificates.

Incomplete construction sites

A 164-foot bridge built outside the Nehru Jawaharlal Stadium, the venue of the opening ceremonies, to transport the athletes to the stadium collapsed on September 21st. Sporting venues have seen crashing of installations. Concerns were also expressed regarding the quality of the swimming pool water.

People are also complaining about the unavailability of tickets, and the hassle of even getting one, even for games with no mass appeal. This is followed by empty stands in the Games. The organizers blamed the slow server for not updating the system fast enough.

Athletes' village

The athletes' villages had all kinds of problems from incomplete wiring and plumbing to issues with power supply, internet, mobile telephone coverage. Some rooms were still filled with leftover building debris. The area around the games inundated with water from the rain and became a breeding ground for dengue and malaria-carrying mosquitoes.

Among those who pulled out of the Games due to the unhygienic conditions of the athletes' residence are sprinter Usain Bolt, cyclist Travis Meyer, table tennis player Stephanie Sang, tennis player Elena Baltacha. They withdrew due to concerns about disease and hygiene. In addition to a reported case of mosquito-borne dengue fever, more than a dozen swimmers from Australia and England fell ill at the Commonwealth Games.

Scandals

A New Zealand commentator, Paul Henry, ridiculed the surname of the Indian Delhi Chief Minister, Sheila Dikshit, inevitably creating diplomatic tensions between New Zealand and India. Later on the same day, a South African athlete called the people

in the crowd "monkeys" and the Games "a joke".

Three Ugandan officials were injured by a malfunctioning security barrier at the games' village. Later, a Ugandan official raised allegations of discrimination by Indian officials for not apologizing in a timely fashion.

Every cloud has a silver lining

Despite all the problems, the opening ceremonies, attended by a crowd of 64,000, were spectacular. They featured traditional Indian dance and music performances. A \$16-million helium blimp also hovered overhead and displayed a visual crawl of the nations' flags as they were announced. Surprisingly, and to everyone's relief, Pakistan, India's archrival received one of the largest applause from the audience.

Also, the government of India announced free education for all the medal winning students from the Commonwealth Games. According to the minister of Human Resource Development, "Our boys and girls are competing with sportspersons who have better infrastructure in their countries, and our boys are doing well. They are our heroes and the nation must go out of its way to support them."

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Point Vs. Counterpoint

Should Technology such as i-Clickers and MonocleCAT be used in classes?

POINT

COUNTERPOINT

KATE HEYMANS
2A CHEMICAL

If you've ever had a prof use these effectively then you'll agree; yes these should be implemented in our lectures and used for our assignments as much as possible.

It's the sad truth that some lecturers are just faced with way too many students for the instructors to be able to interact with the students and they just cannot really tell if their students really understand the material. Both iClicker and MonocleCAT help with this problem and provide the lecturer with instant feedback. iClickers are a nifty little devices that allow you to choose answers from A to E to answer a multiple choice question presented by a prof. MonocleCAT is also a fun interactive website allowing students to answer questions by sending in a text or submitting an answer directly online. When the instructor asks a question and immediately sees a graphic appear on his screen showing that over half the class has no idea what the answer is, he knows that he needs to spend more time on a particular concept. This allows the instructors to focus more time on difficult material and to skim over concepts that are already well understood.

Having to answer questions also makes the class more interactive. Let's face it; if you've been sitting in a lecture hall for the past two hours listening to some guy talking, you're probably falling asleep. If you've had to answer questions during the lecture, then would have been paying attention. One of the best ways to get more interaction when questions are asked is to use either iClickers or MonocleCAT. Otherwise, everyone knows it's the one person in the audience who always knows everything and who's going to raise their hand whenever a question gets asked. The rest of the audience will just barely lift their heads to acknowledge the response and then zone out the answer completely. If, on the other hand, a part of the grade depends on pressing the right button, then students are more likely to be paying attention.

Some instructors choose to make these instant multiple questions a part of the grading scheme based on participation only; if you answer a certain number of questions you instantly get a certain percentage. Others may choose to reward only correct answers. Either way of assigning the grades encourages students to participate more actively in class and actually reflects on what is being said. Making the questions graded serves as an incentive for students to answer every question and grading them only on participation relaxes

any pressure and allows students to build up their confidence. Either way, this sort of participation is very important for actually remembering the material. The more interaction is encouraged during the class, the more likely important concepts will be remembered.

Even if you've missed the class or weren't really sure that you understood the concept, being able to review the questions after class reinforces concepts even further. The questions used usually also cover material that the instructor considers important and relevant. This is a huge advantage to students since they can use the questions to understand what the instructor is likely to ask on a midterm or a final and how the instructor is likely to phrase a question. Having a list of these short, multiple questions on hand is great when students study since they are a very quick way of reviewing the material or just evaluating how much you know.

Some assignments are also far less time-consuming when done online rather than on paper. MapleTA allows students to complete quizzes easily online. You no longer need to lug about your assignment questions since they can be accessed from anywhere. Trying to reproduce 3D structures is a lot easier using online assignment programs such as Webassign, than attempting to sketch them on a perfectly flat 2D piece of paper. Webassign allows you to complete online assignments that use software such as MarvinSketch and JME molecular editor. These allow you to design and edit 3D models of molecules. If you've ever attempted to draw all the different isomers of a molecule, you'll agree that submitting an online assignment which allows you to rotate the molecule in all directions is a lot more convenient. As engineering students we aren't all stellar artists and online assignments allow us to overcome that difficulty. Some people also have trouble imagining things in three dimensions, although modeling programs may not actually make an image three-dimensional, they will help struggling students visualize a model better. They're also a great source of inspiration if you're trying to draw the model on paper. Overall, many assignments benefit from being offered through the web and allow students to spend more time understanding concepts rather than reproducing complicated diagrams.

One final advantage to online technology is that you consume less paper. Think about it for a moment. The typical paper assignment has to be printed out so that you have access to the questions, you then waste of bunch of paper making rough drafts, sketches and etc. and then finally the good copy has to be printed. By adding a technological component to the classroom, you can eliminate a lot of the paperwork that ends up in the garbage anyway.

So yes, using programs and interactive tools such as iClicker, MonocleCAT and Webassign can be a huge advantage in an innovative classroom. They allow students to interact more with their instructors and the instructors to adapt their lectures to students' needs. Having online assignments also emphasizes which concepts are important and provides a useful tool for studying them. All of these advantages show that these tools can really make the classroom experience more fun and help create a better learning environment.

ANJALI GOPAL
2A NANOTECHNOLOGY

There has been an accelerated growth of "Classroom 2.0" in the past few years, where the art of learning has been enhanced with tools such as nifty PowerPoint slides, slick tablets, and surround sound systems. Although it's true that speakers and cool animations do add a layer of visual and audio clarity that might be hard to mimic without such devices, it's hard to say the same for the new and "interactive" tools that have piggybacked on the success of "technology in the classroom". More and more courses are implementing devices such as iClickers and the recently developed MonocleCAT application/web-service - but adding a new technology doesn't make it useful. In fact, the majority of 'interactive' applications are just the opposite: they are useless to the learning environment, misleading to professors, and more importantly, a big waste of students' money.

A little background information on iClickers, for those of you who are lucky enough to have gone without it this far: an iClicker is a, well, clicker. It's a miniature version of a remote control, with five buttons: one for each letter from A to E. Students can vote for what they think the answer to a multiple choice question. Pretty cool, right?

Not exactly. The effectiveness of your iClickers depends on what it's being used for. Every iClicker comes with a code that can be registered to match a student's identity. Thus, some courses make it mandatory for students to bring an iClicker to class, and the multiple choice questions asked during lecture make up a portion of your grade. So instead of lectures being a place where you can peacefully learn (or sleep), you'll be having mini-quizzes throughout the term.

Alternatively, your professor can make iClickers optional, and give you participation marks for using it. Some Profs have done this; you don't lose anything by bringing your iClicker to class, and your answers aren't being graded, but if you do faithfully participate in the multiple choice questions, you'll get a small 'participation bonus' at the end of the semester. iClickers are supposedly helpful because students are more willing to submit an answer anonymously than speak out their opinions, or raise their hands in class which helps gauge the understanding of the class.

The latter situation probably has the biggest evil. Consider this: my class has been using iClickers since our 1A term (approximately one course per term). Although the iClicker participation rate was closer to 60-80% in our 1A term, by 2A, an average of 50 students participated for each clicker question. Now, a professor will generally assume that a class is comfortable with a concept, and move on to the next topic, if 50% or more of the class chooses 'the right answer'. If 50% of the 50 students got the right answer, that's only 25 students in the class. As you might have guessed, the majority of the 25 of students who are actually getting the right answer are probably guessing or are the keeners in the front rows. But see what the iClicker did there? It took the results from 25% of the class, and generalized it for the entire set of 100 students.

For all you know, the other 75% of the class might be hopelessly lost.

Now, MonocleCAT is even worse. MonocleCAT is an application developed by the start-up company, Top Hat Monocle. Based on the premise that "students are bringing an array of devices to classes, including laptops, net-books, cell phones, Blackberries, iPhones and iPads", Top Hat Monocle wants to "activate the learning process by pushing out a simulation to student devices" (Source: www.tophatmonocle.com). One of the co-founders of MonocleCAT came to our classroom to further add that MonocleCAT is 'better' than iClickers, because you don't need to bring "extra hardware" (such as an iClicker) to the classroom as obviously, 100% students bring their laptops to class.

Contrary to popular opinion, most students don't bring laptops to class. This is fairly obvious, even if you aren't in engineering: if every student was bringing a laptop to class, then computer labs wouldn't be crammed with students during peak class hours. From personal observation, I've seen one out of ten students in every class use a laptop during lectures. The fact that most students don't bring laptops to class is made even more obvious by the fact that you can't take notes on a laptop for math and physics courses. Second, suppose that simulations were being introduced to students - if participation is optional, what is motivating students to try out these simulations anyway and not, say, surf Facebook? MonocleCAT is accessed through the internet - if you 'push' these simulations at students,

you will have unleashed the power of the interwebs through the entire class during lecture.

If, on the other hand, the 'simulation' was mandatory in class, then what about the students who can't afford laptops? Laptops aren't iClickers. An iClicker costs somewhere around \$40; laptops are closer to \$400 (which is rather cheap for a laptop).

From personal experience, the simulations on MonocleCAT aren't very novel anyway - you can click and drag a few things, which is fun, but most of the simulations show basic concepts that you can usually find animations for online. Most of the simulations are processor-heavy, and can really slow down an older machine.

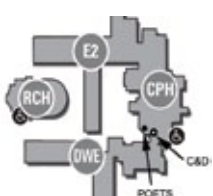
The bottom line: a few sparkly simulations, or clickable buttons, are not going to keep students awake any more than the advent of the speaker, or the digital projector, has. If you think Calculus is boring, adding a smattering of multiple choice questions is not going to make the content any less boring. If students really wanted to know the material, they'd go to class prepared, attentive, and focused. No need to force us to shell out big bucks for technology that, at the end of the day, is like jewelry: useless... but pretty!

The other 75% of the class might be hopelessly lost.

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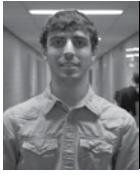


HOURS OF OPERATION
MONDAY-THURSDAY 7:30AM - 7:00 PM
FRIDAY 7:30 AM - 5:00 PM

Editor's Note:

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

New Seasons of our Favourite Series



**AMMAR
MASUD**
2A NANOTECHNOLOGY

Between labs, tutorials, early lectures, assignments, and a lot of BEVERAGES it's amazing how we can still make time for our favourite shows. But luckily watching a quick 30-60 minute episode of a show you love with friends is a great way to relief stress and who says you can't multitask when watching them. In fact, I am watching the newest episode of *The Office* as I write this. I'm currently following four shows and, based on many recommendations, will be increasing that number, if not now then by the start of my next co-op term. Here are a few shows I follow and have had been recommended to me by friends.

How I Met Your Mother

Mondays at 8:00pm on CBS

This sitcom is the favourite of many mainly thanks to its iconic character Barney Stinson played by Neil Patrick Harris. It is currently on its 6th season and does not seem to be slowing down. The show, for those who have been stuck under a rock for the past several years, is of a father, Ted, played by Josh Radnor, telling his kids the story of how he met their mother. Six seasons later and he still has yet to reveal who the mother is or how he met her. Every episode is a flashback that follows the life of a group of five friends in their late 20s living in New York City. Barney is essentially the bro-code in human form; he is a womanizer who carries out many strategies to meet women, sleep with them, and then leave them the next day without having to hear from them again. Ted, the father telling the story to his children, is an architect always

thinking about finding the one he will settle down with. Lilly and Marshall are soul mates who met during their first year of college and have been with one another since. Marshall is a Lawyer while Lilly is a kindergarten school teacher. Robin is a news reporter and has been in relationships with Ted and Barney. That is all I can say without spoiling anything.

The Big Bang Theory

Thursdays at 8:00pm on CBS

A sitcom which follows the lives of three geeky scientists, a horny engineer (fuck yeah), and a waitress living next door who aspires to become an actress. The show is focuses on an audience made up of science lovers, geeks, gamers, the tech-savvy, and individuals who waste too much time on *Wikipedia*. BBT seems to target a more general audience in later seasons as the number of geeky jokes and references have decreased. I personally prefer the first season above the rest but still watch the show for the few geek references in each episode which I have come to love. The show takes place in California, specifically in Sheldon and Leonard's, a theoretical physicist with severe OCD and a experimental physicist, apartment next door to Penny's, the not-so-smart love interest of Leonard, apartment for the majority of the time. Their friends, Howard, a horny engineer living with his mom who consistently fails at picking up women, and Raj, an Indian particle astrophysicist who lacks the ability to speak to women, visit often and are also co-workers to Sheldon and Leonard. Sheldon is the favourite character for most and after watching just one episode you'd understand why.

Community

Thursdays at 8:00pm on NBC

This is my personal favourite comedy on television at the moment and, unlike the rest of the shows on this list, I watch on

television instead of obtaining it legally on the computer at a later time. It is only on its second season and has already become quite popular due to great advertising but mainly due to its amazing first season that did not have a single disappointing episode. The show follows a group of students of all ages at a community college who form a study group for Spanish class and become a close group of friends. For those familiar with *Derrickcomedy* from *YouTube*, you will recognize Troy, one of the major characters of the show, and some of the other members of *Derrickcomedy* who make occasional appearances. The group works together to pass Spanish and survive college life in general. Each member of the study group carries their own and working together they offer a great comedic team put in hilarious situations throughout their first year. No one character is iconic to the series but three of them do stick out beginning with Abed and Troy. They make for an amazing duo that never ceases to entertain whenever they are together. The third being Pierce who's stupidity and lack of common sense makes any moment in the series go from LOL funny to ROTFLMAO funny.

Modern Family

Wednesdays at 9:00pm on ABC

A sitcom mockumentary that follows the lives of three families connected together through events and other characters. The families must deal with antics, adventures, and mishaps during a day for each episode. I don't know too much about the show but two of my roommates are hooked onto it and have recommended it on several occasions not realizing they have already recommended it to me a dozen times previously. The show is only on its second season and has already won big awards including an Emmy for Outstanding Comedy

Series. I hope to begin watching soon after exams are done with and see what all the hype is about.

The Office

Thursdays at 9:00pm on NBC

Another mockumentary that is nearing its end as it is beginning to slow down and due the announcement of this being the final season we will see the main character Michael Scott, played by Steve Carell. The show is about the everyday lives of office employees working for a paper company and their ridiculous boss. The show is in its 7th season and seems to be slowing down now. Views on it vary but most claiming it peaked in its 3rd-4th seasons. It has not gone too far downhill from there but is not quite as thrilling and dramatic. I still follow the show but if they add another season I will surely quit because it will not be the same with Steve Carell.

Glee

Tuesdays at 8:00pm on Fox

A musical comedy-drama that has captured the hearts of many and is even played at POETS every Tuesday for engineers to enjoy. It focuses on a high school show choir and drama in the lives of teenagers and teachers associated with the club. You will hear of those who dislike the show but yet watch it due to the great voices and songs covered in each episode. If you check *YouTube* the day after an episode airs you will notice that many of the top videos are song covers preformed by the GLEE cast members. I did watch several episodes but it was not quite my cup of tea (I'm picky about tea) but I still listen to song covers. Most people who like GLEE LOVE it and can't get enough of it. Watch a few episodes and decide for yourself.

There are many more shows that you should look into as well, including *30rock*, *Madmen*, and *Two and a Half Men*.

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The Future of Gaming

Accessories Not Included



**JON
MARTIN**
OBI JON1138

For every system there is a means of control, whether it is a camera, controller, or voice recognition, and then there are the non-essentials. Web-cams, controller attachments, and alternate input methods, all of them add to the bulk in your gaming area all the while decreasing the bulk in your wallet. Yet I can't help wondering how useful they actually are or how often they are just a cash grab. So that is what I am going to be talking about for this issue: accessories in the video game industry, both the good and bad.

A while ago I made fun of the insane accessories that were being released for the Nintendo Wii: the cheap little plastic things, molded to fit onto the WiiMote – everything from golf clubs and tennis rackets to whisks and spatulas. I still think these are the most blatant money grab in the entire gaming industry. They don't do ANYTHING and yet people still buy them because it makes the experience more 'real'. I recently saw a similar attachment for the Playstation Move, a plastic gun attachment that holds the Move controller while adding a trigger and traditional gun grip. It doesn't actually add anything to the game, but who cares? The Playstation Move appears to be selling well, being sold out from the local Best Buy and Future Shop when I last checked – if you are on the lookout check Staples, they had a bunch in stock.

Well now I've seen the worst – or is it the best – when it comes to useless controller attachments, with the Microsoft Kinect camera system. Third party pro-

ducer 'Atomic Accessories' is releasing an adventure raft accessory that can add realism to the Kinect Adventures game, specifically the rafting co-op game. This full size inflatable raft looks identical to the one in-game, though it doesn't state whether it is actually water tight – only time and some adventurous idiots can answer that question.

Another set of controller accessories is the qwerty keyboard attachments for the Xbox 360 and Playstation 3 controllers. Both systems allow for easier text input than the traditional on-screen keyboard, as well as being utilized for instant messaging. The biggest difference between the two is the placement of the keyboard on the controller. The Xbox 360 controller has a headphone jack in the bottom, which is used by the chat-pad to connect to the system. This arrangement allows for the keyboard to be within easy reach – fitting within the existing space of the controller between the hand grips, and allowing for comfortable blackberry-esque thumb control. The Playstation 3 controller uses a mini USB port on the top of the controller rather than the bottom, this lead to the unfortunate requirement of attaching the keyboard to the top of the controller, effectively doubling its size, as well as leading to awkward typing and the possibility of hitting the controller analog sticks when typing. Clearly these two similar devices are examples of forced design to fit with existing technology and there are times when that can back-fire.

Another big accessory on the market is the Nintendo Wii MotionPlus attachment, which connects to the bottom of the existing Wiimote and makes it more accurate. This accessory is currently used by a limited number of games, though I think this trend will increase as Nintendo has to

compete with Sony and Microsoft in the motion control market.

When it comes to things like Move and Kinect, WiiMotion Plus to a lesser extent, I definitely approve of the development and release of accessories that fundamentally change the gameplay experience. With the high initial cost of a gaming system I think it is great that I can spend substantially less and get the benefits of an almost new system. That is why I only grudgingly include WiiMotion Plus in this category as it is only improving an already existing system, not redefining it.

Before getting into console gaming I bought all PC games, but the cost ruined my outlook on that section of gaming. While the cost of the actual games is about the same, it is the price of keeping current that really taps at your bank account. Whenever you have to buy a new graphics card, increase your system's RAM, or get a faster processor, the cost of the game goes up exponentially. But not with console gaming, where a game released at the beginning of a console's lifecycle and a game released at the end will both be playable on any system. No hardware upgrades and no additional cost – now that is a good investment in a gaming system.

After my rant against PC upgrades, it may seem weird that I support Move and Kinect. Aren't they just overpriced accessories? I say no. Why? Because they drastically widen the market that each console targets, and the games that gamers can play. When the Wii first came out people flocked to buy it because it was totally different than anything that had come before, as well as being at the complete opposite end of the gaming spectrum from the Xbox 360 and the PS3 with their standard controllers. Who would ever have thought

that both Sony and Microsoft would cross that whole spectrum? But they didn't jump the gap by releasing new consoles and splitting their market while investing huge amounts of money into development. Instead they released substantially lower priced accessories, with significantly less research and development investment, so that they now cover both ends of the spectrum simultaneously.

Microsoft and Sony both now have the opportunity to market games to a much greater percentage of gamers. They can release motion control party games for casual gamers like the Wii has for the last few years. They can still release their hardcore FPS games for die hard gamers like they have for years. The real benefit comes when they start to create games in the grey zone between core and casual gamers, which will introduce both groups to the other games they have been missing and make each company a ton of money. While Nintendo gets left in the dust.

That may seem harsh, but I'm really getting tired of saying article after article that there is nothing significant to report for the Nintendo Wii. Shake things up Nintendo! Make people excited about your system again, or run the risk of having another Gamecube on your hands when everyone is running after the Playstation and Xbox.

So that is my rant for this issue. The moral of the story – don't buy those stupid plastic snap-on attachments, or their big dumb cousin, the inflatable raft. They're just a money grab. Instead look for those accessories which go beyond the realm of peripherals and approach the level of being a new system for a greatly reduced investment. We are standing at the brink of a new wave of games so, Keep On Gaming.

Review based on the Trailer

Jackass 3D



**JON
RADICE**
4A CHEMICAL

Everybody has their guilty pleasures when it comes to their entertainment. As a person that watched every single season of Flavor of Love this summer (and loved every second of it) and the entire discography of Three 6 Mafia on my computer, I can't preach from atop the ivory tower when it comes to enjoying something just because it's a lot of fun. Everybody has that stupid little TV show, band, or movie that really lifts the spirits, one dead brain cell at a time. All throughout my adolescence the king of guilty pleasures is, and always will be Johnny Knoxville and his merry gang of idiots.

Want to feel old? Remember seeing Jackass on MTV? That began ten years ago and the last episode aired 8 years again. Ever since then, their legacy has been felt far and wide, from their countless spinoffs and imposters to phrases like "getting Party Boy-ed" still in wide use today. Jackass was a cultural phenomenon in the early 2000's and I can say I got a kick, and still do get a kick from watching every nut-busting stunt, and every puke filled gross-out.

To say I'm excited about this movie is an understatement. A perpetual sucker for 3-D movies, adding that extra dimension may mean I'll be getting a lot of wangs sticking out towards me, vomit flying right by me and massive crashes happening all

around me. And I will be giggling like a schoolgirl on Nox the whole way through. The trailer shows the staples expected of every jackass movie. April and Phil Margera are getting harassed by a massive gorilla. Steve-O gets a real shitty stunt, as he is launched into the air inside a full

done on those slopes, and I cannot wait to see what else there is.

Trying to rationalize why Jackass is appealing is no easy task, especially to anyone who doesn't see the humour (read: 90% of all girls). It basically boils down to a childhood fascination of cartoon char-

acters. The whole gang is one big, real-life Looney Toons cartoon; their stunts are outlandish situations where zany props and all logic are thrown out the window. I've seen extend-o-gloves punch out Bam Margera, Johnny Knoxville has ridden a cartoon rocket over a lake, the crew has fashioned rocket skates out of bottle rockets and ridden them down a road. These boys stole the entire Acme product catalogue from Wile E. Coyote and ordered one of everything. It's that childish joy that comes from having a bad idea that could have a shred of looking cool that comes back. It's not that they get hurt, it's that they think of these stunts that keeps me wanting more. But how far can one go until the joke becomes unfunny? These guys are pushing past their thirty, with Johnny Knoxville hitting the big 4-0 next year. Even Bam, the baby of the group is now 31, a far cry from the indestructible youth that started off this movie. Once the movie switches from ingenuity to desperation, when the scenarios are no longer about the way-cool or way-stupid idea and more about the injury report at the end does the movie stop. 3D is the biggest gimmick of the last few years, does that mean they're scraping the bottom of the cartoon barrel?

At the end of the second Jackass movie, we have Bam praying that there won't be a third. I'm praying that they can recapture all the juvenile mischief of the first two movies. I have to see this one while its in theatres, but I can't shake the nagging feeling that this movie will fall flat at the end. Go see this movie, which comes out on October 15th, but drop your expectations to as low as possible, check your brain with the ticket taker, and enjoy the (possibly literal) 3D shitstorm that you'll encounter. These guys can't keep this pace up forever.



jackassmovie.com

port-a-potty. As a snowboard and general winter nut, seeing them on a ski hill getting launched out of a pine tree gets me incredibly excited about what else can be

done on those slopes, and I cannot wait to see what else there is.

The Fifth Down



SI JIA ZHANG
4A NANOTECHNOLOGY

"2 Minute Warning"

Topic: Live and Let Die....Randy Moss #81

"Brady to Moss, touchdown New England!" Lest we forget that statement, because it probably won't happen again. Now that Moss overstayed his welcome in New England, the Patriots are in limbo and the Vikings are making a last stand with their swords and shields ready for battle. It's unfair to categorize Randy Moss as a troublemaker because he clearly took the Patriots to new heights, but this is the same Randy Moss who went to the public to demand money from the Patriots right after the first game of the season, this is the same Randy Moss who "stopped trying" and had only 34.8 yards/game in 2010, albeit it's still a young season. Arguably, his efforts vanished and his game declined due to an apparent lack of interest. Although money is a factor for his poor performance, I believe this all has to do with his fundamental attraction to self-implosion. "The man from Rand," WV started his career as Viking. He had a mind blowing rookie year: 17 touchdowns with 1313 yards receiving. Say what you want, but Jerry Rice couldn't even match that in

his first year. However if you look closely at Moss' stats, you would see that every 3-4 years, there is a dramatic dip in his performance. This was true in Minnesota, Oakland and, most recently, New England. Now the question is: why is this so? The answer is simple: Randy Moss is a sore loser. Whenever winning is a challenge, instead of rising up and leading his team to victories, Moss simply softens up and quits trying. This was especially true in Oakland, where he only had 11 of his 151 career touchdowns in 2 seasons; in other words, the Raiders suck. He also gave up when Minnesota started to decline, and this "tanking-because-I'm-a-sore-loser" behaviour was evident in his final games as a Patriot. Belichick realized this and prevented Moss from spreading this "disease" to the locker room; he knew that keeping Moss would end up costing the Patriots both mentally and statistically, therefore the coach's leadership instincts took over and eliminated the weed from the grass. Will this pay off in the short run? A probable yes. In the long run? A definite yes.

As a final tribute to the New England Patriots version of Randy Moss, here's a parody of Paul McCartney's "Live and Let Die".

"When you were in '08 and your season was off the hook, you always took stride and catch balls on the fly (you know you did, you know you did you know you did) but in this ever changing league in which you play in makes you give in and stop tryin'

Say live and let die

Live and let die

Live and let die

Live and let die"

Game Winning Field Goal:

(Since *The Iron Warrior* is a bi-weekly print, tips will be provided for the upcoming week only.)

Top 3 Additions:

1) Felix Jones (RB, Dallas) 65% owned in Yahoo Fantasy: Dallas stated they were going to give more carries to Felix Jones before the game against Tennessee, and he ended up running for 109 yards averaging 7.3 yards per carry. Get him while he still lasts!

2) Kevin Kolb (QB, Philadelphia) 46% owned in Yahoo Fantasy: 21 for 31 pass completions, 253 yards and a TD for a QB rating of 103.3, it's safe to say that he's filling in nicely for Vick. With Vick still nursing a bad rib injury, Kolb is a nice pickup for bye week QBs.

3) Steve Johnson (WR, Buffalo Bills) 13% owned in Yahoo Fantasy: Caught 2 TD passes from Fitzpatrick against the Jags and he has scored in the last 3 consecutive weeks. He's clearly on good terms with the Bills' QB Ryan Fitzpatrick.

Top 3 Starts:

1) Washington QB Donovan McNabb against the Colts' 29th ranked pass defense.

2) San Francisco RB Frank Gore against the Oakland Raiders' 31st ranked run defense.

3) Baltimore RB Ray Rice against the 20th

ranked run defense: New England Patriots.

Top 3 players to bench:

1) Cleveland RB Peyton Hillis: He won't be in fantasy land against the Steeler's defense.

2) Detroit QB Shaun Hill: With WR Calvin Johnson nursing a shoulder injury, backup QB Shaun Hill will not continue his monstrous 2010 backup QB campaign in Detroit, especially not against the Baltimore Ravens.

3) St. Louis QB Sam Bradford: With WR Mark Clayton out for the season, Bradford's going to struggle mightily against San Diego's #3 ranked pass defense.

Post Game Press Conference:

(My current record: 3-0)

The 3 Lockdown Picks:

Kansas City Chiefs over Houston Texans: Romeo Crennel's defense is searching for his Juliette, and they're relentless!

NY Giants over Detroit Lions: The Lions' starting QB Matthew Stafford and their best receiver Calvin Johnson are both nursing shoulder injuries. Add in the Giants' recently revamped defense, New York is cashing in.

Miami Dolphins over Green Bay Packers: Aaron Rodgers had a concussion at the end of the last game and with the Dolphins coming out of a Bye week and still angry about that loss against the Patriots in Week 4, Miami is surely going to win this one; they simply can't let Miami's other famous trio (Lebron, Wade, Bosh) take the spotlight all the time.

Sports Make you Poor (but Happy)



ALISON LEE
2A NANOTECHNOLOGY

Oh, sports. You are one expensive habit.

No matter which sport, there's a good reason why athletes are always in need of funding. If you're a regular exerciser, try adding up your athletics-related expenses for the past month. I don't know about you, but my total was at least twice as much as I spent on food and I'm not even a varsity athlete! This got me thinking about the different ways in which sports can drain a bank account.

Firstly, September is the month you sign up for everything: intramurals, sports clubs, fitness classes, gym memberships, you name it. \$20 here, \$20 there, and suddenly you're out a hundred bucks. The flip

side of this is that those are all investments for the next four months, so it's not as bad as it seems.

Next on the bill is equipment. Anyone who is a goalie for any sport will tell you how poor sports makes you. Having to invest in full-body armour is not cheap, and you probably wouldn't want that stuff to be second-hand. What goes on your feet can also hit pretty hard. Cleats, cross-trainers, or skates all have a finite life, especially after the duct tape patch jobs peel away. And then there are extras like balls, rackets, sticks, bats, and helmets. Maybe this is why some people prefer cross-country running to hockey? Any equipment you have also needs to be washed, so laundry is another expense, although a minor one compared to the price of goalie gloves or a new stick.

The next question is: what are you going

to wear? Nowadays, there's a lot of emphasis on looking good at the gym and in the game. Good for you if you can ignore it and just wear whatever's comfy, but most of us have indulged in tight-fitting compression tops or bottoms, iPod armbands, and other brand name swag. Walk into any SportCheck, Athlete's World, Lululemon – you name it – and it's hard to find anything under \$20. If you do, it's probably a water bottle or an XXXL lime green tank top.

So how to stay out of the red as a student athlete? Seriously, take up running. Or else try second-hand gear and sharing with friends. If you can make it down to the Kitchener Play It Again Sports, that place is a haven for second-hand goods. They buy your old gear and you can find lots of sports equipment that's almost as good as new. *Kijiji* and *eBay* can also have great finds, as well as online clearance sales

where you can get last season's runners for \$30 or overstock clothes for under \$20.

Lastly, exercise makes you hungry! The weeks when I have sports every day, I can out-eat most guys. The problem is, food also costs money, and you don't want to just keep eating whatever's cheapest. Unfortunately, there are no second-hand food options (unless you count the food bank), so the only remedy for this is to either eat according to the Food Basics flyer, or to buy bulk with fellow starving athletes.

Yes, sports certainly is an expensive habit. However, unlike smoking or binge-drinking, it's also good for you. It costs you more per hour to attend class than to play intramural basketball, so on the grand scheme of things, it's just another recreational expense. Sports are challenging, social, and fun, so that's how I'm justifying my bills.

IW Recommends

Music:
Traded Sounds



KRISHNA IYER
2A NANOTECHNOLOGY

This fine Sunday afternoon, as I drifted in and out of my "work" frame of mind, a band from Vancouver and Toronto caught my attention. The band is called Traded Sounds. Don't let the name fool you. This band has its own distinctive flavour to it. Smooth, calming music with a strong emphasis on simplicity of sound is how I would describe their style. With heavy use of the acoustic guitar and hardly any percussion, it drifts somewhere in boundary of Beatles-esque rock and country music. I feel some kind of connection with their lyrics. After all, one of the band members is a UW Engineering Alumni. We at IW think you should check their new album available on their website www.tradedsounds.com.

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The Brew Man Group - Hofbräu Oktoberfestbier



DAN ARMSTRONG
4A MECHANICAL
NEIL PARTRIDGE
4A CHEMICAL

It's Oktoberfest! It's that time of year when all beer enthusiasts connect with their inner Kraut, shoving miles of thick sausage into their mouths and washing it down with the finest German style beers. At least, that's the dream. Unfortunately, despite having one of the largest Oktoberfest celebrations outside Germany, the situation at most of the Festhallen is downright shameful, completely void of Oktoberfest style lagers, or even anything German. It's rather sad when a beer-focused Bavarian festival fails to include any decent Bavarian beers. Oh well, perhaps we can find solace in a sub-zero Molson Canadian and the authentic German musical stylings of Ill Scarlet and Default... yeah, f**k that. In hopes of tasting a little bit of the true Oktoberfest spirit, today we'll be reviewing the Oktoberfestbier from brewery/beer-hall/Nazi hangout turned international restaurant chain, Staatliches Hofbräuhaus.

Dan: 'Hof', it seems, means 'court' in German, meaning Hofbräuhaus might be translated as the court's brew-house. The brewery dates back to 1589 when the duke of Bavaria expressed his distaste for Munich beer (which seems kinda ridiculous by today's standards), resulting in the establishment of a local brewpub. The tavern long remained a popular place for government representatives to gather. In fact, our (not-so) favourite 20th century German

leader used Hofbräuhaus to declare the twenty-five theses of the National Socialist party... something the company's website chooses to leave out of its public history for whatever reason.

While originally only producing brown ales, Hofbräuhaus quickly developed a wheat beer recipe by the early 17th century. Today their line-up is about a dozen strong, including a Munich-style lager and strong Mai-bock. Aside from serving at their own tavern and at Munich's Oktoberfest celebration, they've apparently taken every opportunity to exploit the world's thirst, setting up shops in cities like Melbourne, Seoul, Genoa, and half-a-dozen locations across the US. I'm sure it's like going to Euro-Disneyland; it's not the original but after an hour you're too drunk to care how many childhoods you've ruined.

Neil: Märzen, darker, stronger beer (approximately 6%), bottom-fermented and lagered for at least 30 days. Before the days of refrigeration, they were brewed in March (thus the name) and allowed to mature in cold-storage (aka ice box) over the summer, thus avoiding



nasty infections (Example: STI's- Saccharomyces Transmitted Infections!). The resulting Märzenbier is full-bodied, rich, toasty, typically dark copper in colour generally owing to a healthy addition of dark Munich malt. Frig, send that to me express via funnel!

A little about Oktoberfest, only the following Munich breweries are allowed to serve beer: Augustiner, Hacker-Pschorr, Hofbräu, Löwenbräu, Paulaner and Spaten. Nonetheless, there is no shortage of beer for the patrons. The standard 1L mugs are filled something along the lines of seven million times (holy!) total, and furthermore, beer servers and/or bar maids are expected to carry up to 10 of these at a time; that's pretty much a workout in itself!

Dan's thoughts: My first sample of an Oktoberfest beer was last fall when I was served 1L of Beau's Night-Märzen in a branded stein glass. With its beautiful orange-amber colour, complex sweet malt profile, and just a kiss of fresh hops, I instantly got a hard-on for the style. Here we are now a year later, and I'm naturally excited to try my first German representation. But after pouring it in anticipation... this just doesn't look right. There's a nice puffy white head, but it's sitting on top

of a clear, straw-yellow body. The aroma coming up from the glass gives further indication that this is not a Märzen (in classic form, anyway). Instead of toasty caramel malts, the nose on this beer is mostly light grain with some floral German hops. The taste follows similarly, adding on a touch of sweet green apple flavour, as stronger pale lagers tend to do. Like Neil's date the morning after, I'm confused and disappointed. This beer is more akin to a strong German pilsner, and while it is definitely drinkable, it's not what I hope to sip on when I one day don some lederhosen and a feathered hat in Munich.

[2/5]

Neil's thoughts: Pouring as a pale yellow, and smelling not so different from your standard BCK brew (Blue-Canadian-Keiths), this beer isn't so befitting to the style I outlined earlier. My first thoughts on tasting... Blitz-trincken! For those saavy in our house drinking game, you'll know that this means to down your alcohol, pansy. With that said, the quality is better than average, with some German hops evident in the aroma and palate. Indeed, I was able to quaff this beer in due time. And isn't that the point, given these were brewed for sloppy times? Drink on my German brethren, drink on.... You certainly know how to brew a beer for mass-consumption.

[2.5/5]

Not really recommended for consumption, so if you can find them, try: Paulaner Oktoberfest-Marzen, Beau's Night-Marzen, Samuel Adam's Octoberfest

Props to hops // Dan and Neil

Togetherness is Wonderful



CHAD SEXINGTON
4.5X MANGINEERING

Good morning Sexy Readers!

I hope you're doing well and that this past weekend was a time for fun, food, family, and fruitful relationship building. I know mine wasn't. However, there are many other things in this world that are even better for bringing things together than forced familial contact. Yes boys and girls, I'm talking about Duct Tape. Duct tape is one of the manliest substances alive. It's impossible to resist the call of the sweet silver strands, and its usefulness is beyond all forms of measurement. It's a known fact that duct tape has been the source of man's greatest achievements since the dawn of

recorded existence. Originally developed by the military, Duct tape has expanded to the toolbox of every man everywhere. But what can you do with it? Well, just about anything really. Weave it, stretch it, roll it and sew it. If you can think of it, it can be done. So read onwards good people, to find out Chad Sexington's top five manliest uses for duct tape!

1) Underwear. Want a pair of boxers that will last forever and feel like silk? Weave a pair with a high thread count roll of duct tape. If you feel so inclined, leave the sticky side in so you don't have to worry about waistband issues. Duct tape boxers will look great, make you feel like a champion, and be the sturdiest fabric you've ever had keeping you safe.

2) Hammock. Got no place to kick back and relax? Easy, build one. With about 30 minutes of work and two strong

trees (or houses) you can easily build a cocoon of luxury with a beautiful silver sheen. Throw in a few other colors of tape for extra aesthetics and curl up for a well deserved nap.

3) Parachute. MacGyver couldn't do this one better if he was falling out of an airplane with nothing but a roll of duct tape. Just make a large blanket and strap it on for a manly landing with grace and poise (do not attempt). Cuz mens gets grace and poise in spades dontcha know.

4) Fix your car. They don't call it 200 mile and hour tape for no reason. Duct tape will hold your car panels together under the most extreme conditions. You can even make some fancy seat covers with it if you need a little extra protection. You should keep a roll in your trunk at all times just in case you need it for some roadside repairs.

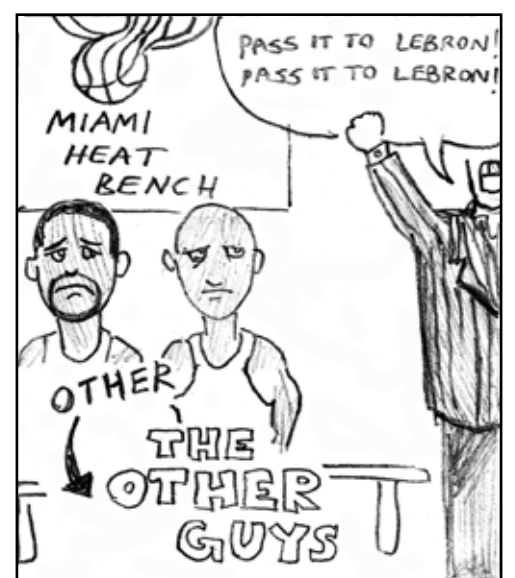
5) Rock Climbing. Twisting up some strands of tape can give a high strength rope with a sticky end that can be used in a sticky situation. Wrap it around a large boulder and you've got a ready to go rappelling line. Just don't forget to bring some extra in case you run out halfway to the bottom. So strap on a few rolls and hit the hills when you're feeling bored, you're sure to find yourself in all kinds of interesting scenarios (don't try this either).

That brings us to the end my sexy readership, and next time you're feeling bored or out of touch with your family and friends, grab a roll or two of this sticky stuff and bring yourselves together with a little fun project. There's more you can do, you just need a little imagination and a lot of tape. Get to it!

Until next time,
Stay Sexy.

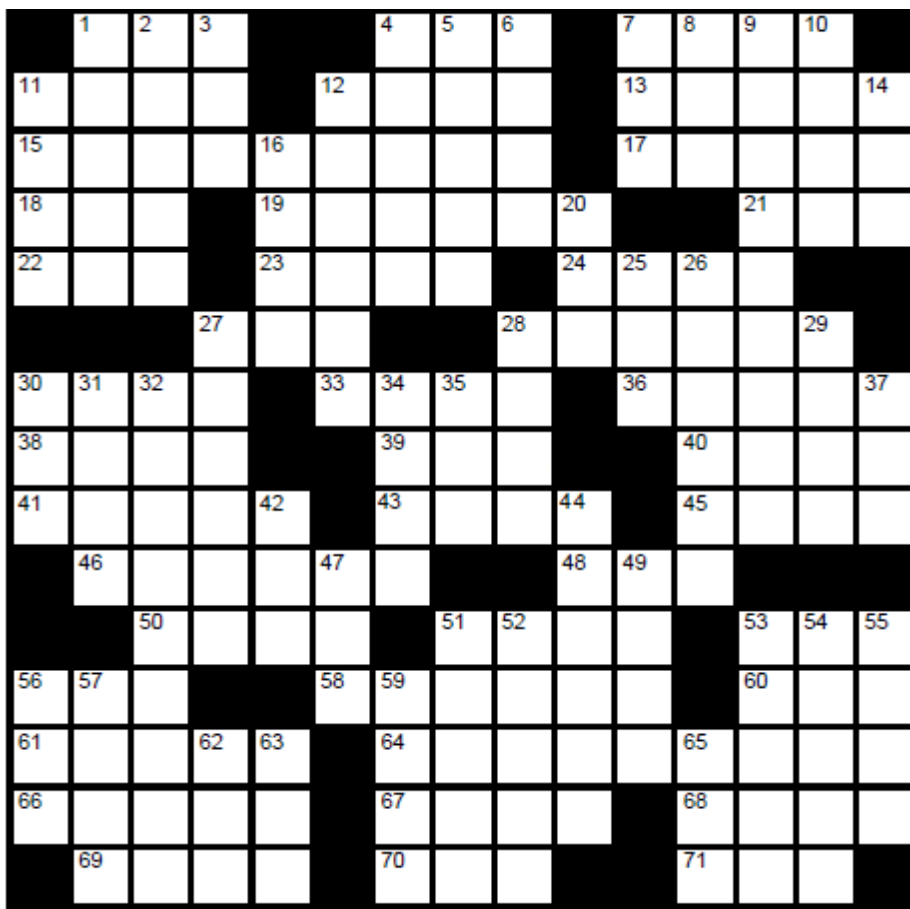
Summer Blockbusters

MICHAEL NEW
3B CIVIL



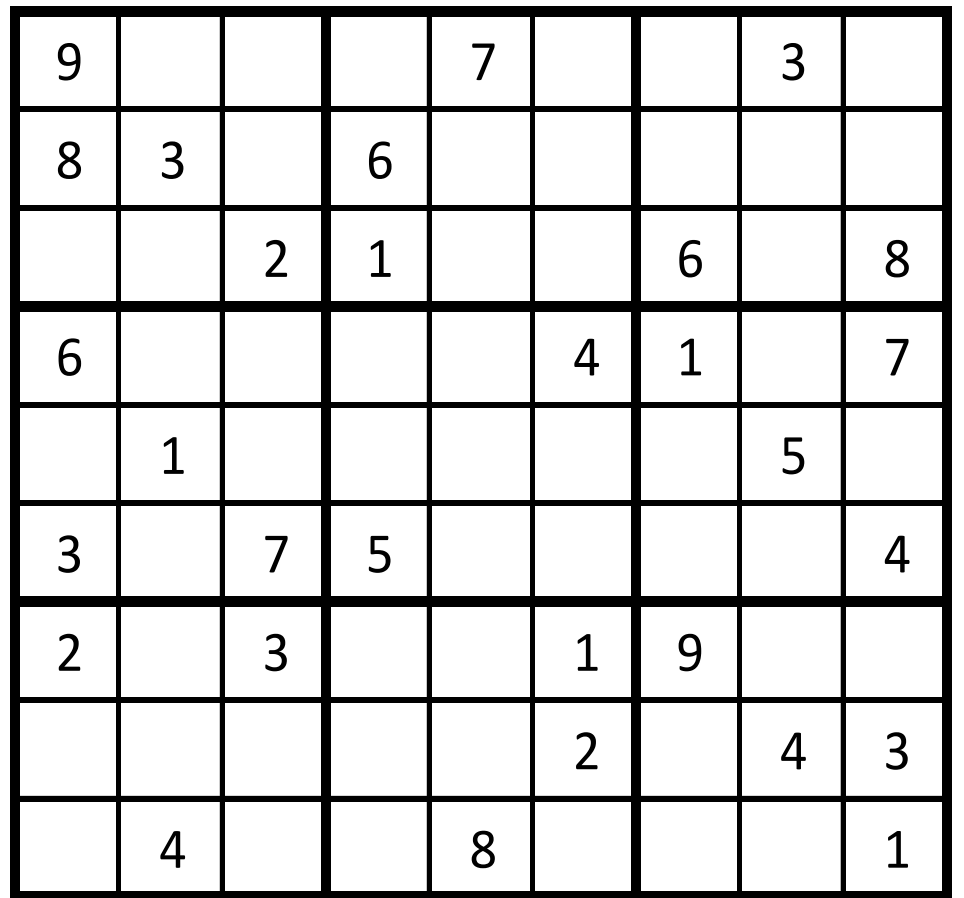
The Iron Crossword

STUART LINLEY
2B NANOTECHNOLOGY



The Iron Sudoku

ROY LEE
2A NANOTECHNOLOGY




Across:

- 1. Crystal phase of water
- 4. ___ Solo
- 7. A Mexican food associated with bells
- 11. Concerning (abbr.)
- 12. To restrain
- 13. Modern communication
- 15. ECE Dean (1st and last name)
- 17. Pomme
- 18. "Master of the House" musical Les ___
- 19. Coax into
- 21. Sweet suffix
- 22. It's sometimes found in a belfry
- 23. "Stop!" to a horse
- 24. Like some tales
- 27. Japanese city on Ise Bay
- 28. Tikka _____ (type of curry)
- 30. River originating in Czech Republic
- 33. Seldom seen
- 36. Unimaginable pain
- 38. Off-stream VP Finance: ___ La-bib

- 39. Part of GTL
- 40. Prefix with gon or vius
- 41. Smooth transition
- 43. To be thrown off balance
- 45. ___ dokey
- 46. Brunch alcoholic beverage
- 48. Goes with yang
- 50. Grandmother to some
- 51. Salon process in which keratin S-S bonds are broken and reformed
- 53. i___! I'm Dora!
- 56. Canadian politician Bob ___
- 58. Swordfish relative
- 60. Siesta
- 61. German BEvERage glass
- 64. 1964 electrical graduate with a building named after him (1st and last name)
- 66. Potato: Pomme d' ___
- 67. Lincoln and Simpson
- 68. Unavoidable occurrence
- 69. Gas with a tiger mascot
- 70. Divisor, so to speak
- 71. Poetic open

Down:

- 1. Columbus was searching for
- 2. Ours looks like this → 
- 3. Slippery fish
- 4. Was forced
- 5. Chambers of the heart
- 6. This doesn't exist
- 7. Infused drink
- 8. Turn it to 11
- 9. Person for which "Engineering IV" is named (1st and 2nd initials + last name)
- 10. Castrol, Quaker State and Mobil
- 11. It's generally seen in pentameters
- 12. Epic movie starring Charlton Heston
- 14. The sheltered side
- 16. Tailors
- 20. η
- 25. Slippery ___ fish
- 26. Shallow bay
- 27. Physical or psychological injury
- 28. "Double Rainbow" or "Rick Rolling" are examples
- 29. Poker forced bet

- 30. Buddhist mantras
- 31. Latin for day
- 32. What the 3 other 9-letter clues have in common
- 34. Taj Mahal site
- 35. There might be a catcher in it
- 37. "Hooray!"
- 42. A span of geological time
- 44. "WOAH! We're half way there! WOAH! Livin' on a prayer!"
- 47. Movie starring Sean Penn "I am ___"
- 49. What you say if you think you know: "___ expert, but..."
- 51. Protoss builder
- 52. One with wisdom and responsibility
- 53. Like some BEvERages
- 54. Frothy coffee
- 55. Domed area at the front of a church
- 56. Replaced by HST
- 57. Exactly: "To ___"
- 59. "Lose Yourself" - Eminem
- 62. Engineering 4th year party
- 63. The One
- 65. ET's transport of choice

THE IRON INQUISITION
Lucas Lim, 1A Nanotechnology

"Are you taking WatPD or PDEng? Why?"



"WatPD, 'cause my boyfriend tells me it's better"
Lisa Belbeck, 2A Nanotechnology



"Probably WatPD, the lesser of two evils"
Philip La, 3B Chemical



"Haven't decided yet..."
Farzi Yusufali, 2A Nanotechnology



"I'm done with that crap"
Geoff Dijkema, 4A Mechanical



"WatPD, seems like it will be easier"
Riley McLeod, 2A Management



"WatPD, because group work sucks"
Brendan O'Shea, 3B Chemical