Note: This document is hosted here for archival purposes only. It does not necessarily represent the values of the Iron Warrior or Waterloo Engineering Society in the present day.



President's Report 16 Months Page 6



Riding The Edge Too Much TV? Page 3



The Big Picture Perfect Attendance Page 8



WEEF Report Spring 1999 Results Page 7

UW NEWS BUREAU

UW faculty elected to Royal Society of Canada

WATERLOO, Ont. — Three University of Waterloo faculty members are among the 61 Canadian professors who have been elected fellows this year by the Royal Society of Canada.

Fellowship in the society is considered the country's senior academic accolade. Since its founding 116 years ago, the society has been regarded as a force for the enrichment, interpretation and strengthening of Canada's intellectual heritage.

The newly elected fellows, who come from diverse backgrounds and disciplines, are to be inducted to the society at a ceremony to be held Friday, Nov. 19 in Ottawa.

"These distinguished individuals join the extraordinary resource of talent and experience that constitutes the society," said Jean-Pierre Wallot, president of the society. "The election of this year's new fellows is a strong mark of respect, support and recognition of excellence from their peers."

The citations for the three UW faculty members are as follows:

* "Paul Thagard, philosophy, is one of Canada's leading philosophers of science. He has a brilliant academic career and has been working intensively in the philosophy of artificial intelligence and cognitive of science for the past twenty years.

Please see **ROYAL** page 2

Coming Up!

BY: JENN MOTUZ

July:

- 6: Brewery Tour
- 7: EngSoc Election

Meeting #5

- 8: ChE Soc Coffee House
- 9-10: Summerfest II
- 10: Mudbowl
- 11: EngGolf
- 12: Directorship Applications Open
- 15: Tal-Eng
- 16: Semi-Formal @ Waterloo Park Directorship Applications Close
- 17: Paintball
- 20: Director's Meeting
- 21: EngSoc Potluck @ POETS
- 22: Arts/Fashion Show
- 23: End of Term Pub
- 24: Soccer Tourney Bowling Tourney

August:

FINALS -- GOOD LUCK EVERYBODY :)

"Happiness is not so much in having as sharing. We make a living by what we get, but we make a life by what we give."

— Norman MacEwan

Inside This Issue

Riding The Edge	3
The New Executive	4
Crossword	5
Executive Reports	6
WEEF Report	7
The Big Picture	8

Volume 24 : Issue 4

A EQUALS G SINE THETA



UW Engineering students organized childrens activitives during the University of Waterloo's Canada celebrations. Games included obstacle courses, co-operative ski races, and frisbee golf.

News from the Charities Directors

Ian Pollock and Mark Melo

3A MECHANICAL ENGINEERING

The summer term has been a busy one, and we've been working at adding yet another event to the blotter for July.

On Sunday, July 25th, there will be an EngSoc wheelchair basketball tournament held at the PAC.

The proceeds from the event will go to the Brantford House, a complex in Brantford that provides remodelled living space for paraplegics and quadriplegics.

The Brantford House will be supplying the wheelchairs for the event.

Each team will be responsible for collecting pledges, and we're asking for a minimum of \$30 from each team.

The Brantford House will be issuing receipts where necessary.

The format will be a five on five tournament, in wheelchairs of course, and each team will be guaranteed three games.

Sign-up sheets and pledge forms are available in the orifice

Sign-up closes Monday,

July 19th at 3:30 pm.

Prizes will be awarded to the winning team, and to the team that raises the most money in pledges.

In addition to the basketball tournament, July is Charity Drive month.

We will be collecting anything that you don't want, and at the end of the term we'll find someone who needs it.

This includes food, clothing, toys, and furniture.

There will be boxes in CPH and the Orifice, and perhaps some other strategic locations throughout engineering.

This is a campus wide event organised by the two of us, pending support from the FEDS, and we hope to see strong support from EngSoc.

We will be awarding P**5 points to the classes with the best participation, so please let us know what you've submitted, either by email or a note in our mailbox.

If you plan to donate any furniture, or anything you consider somewhat valuable, please let us know in advance, don't just leave it by a drop box.

We can be reached via email at irpolloc@engmail or mamelo@engmail

Canada day success story

MICAH POTECHIN

The UW Canada Day Celebration is an event put on by the university each year to give back to the community that supports us.

This year was no exception. We held the celebration at Columbia Lake, with free things for children of all ages to do, demonstrations for the adults, people selling clothing, food, toys, and everything else under the sun.

The Engineers' job during the Canada Day Celebration is to hold "mini-olympics" games for children,

targeted at those aged 7-12.

We had our ever-popular waterslide, a dunk tank, and Kool-Aid Nautical thanks to McDonalds for their donation of the equipment.

We held several wacky races for the children: a sponge race, a multilegged race, a potato-sack race, a cooperative ski race, and the famous Engineering Obstacle Course.

We also had a 6-hole round of Frisbee Golf, a tug-of-war, a soccer game, and a Wall-Of-Fame, where children could dip their hands in paint and put their handprints and names. *Please see CANADA page 2*

Your Next Exec—EngSoc Exec Election Results



 ${\it Chief Returning Officer Vanessa \ Choy hosts the \ candidate \ open forum \ outside \ POETS}$

Hi everybody. Finally, after two weeks of hard work involving getting through nominations, running campaigns, coordinating class visits, debating at the open forum and most difficult of all, voting for the candidates of your choice, you have made the decision to elect your new Eng Soc Exec for the next two torms.

The turnout for the election (which happened on Wednesday, July 7th) was great, especially considering it's a summer term (they traditionally have low turnout rates) Anyhow, without further ado, here are the winners of the election...

Newly elected President, Ian Tien. Newly elected VP-External, Micah Potechin. Newly elected VP-Internal, Ian Pollock.

Also, two out of three of the positions up for acclamation were ratified at the Council Meeting on Wednesday also. They are...

Newly ratified VP-Eduation, Jenn Motuz. Newly ratified (and still) WEEF Director, Mark Cesana.

I would like to extend my congratulations to all the candidates for promoting and running excellent campaigns and I particularly hope the winners will continue their show of excellence now that they have the position. All in all, it has been a pleasure to have been a part of a great election. Good luck to the soon-to-be Execs, and finally:

Thank God, we get rid of the current Exec.... he he!

This is your CRO, signing off.

Vanessa Choy

P.S. and I quote,"No more Al! No more Al! No more Al!"

UW engineers organize Canada day activities

CANADA from page 1

Children of all ages showed up to play the games, and when Mother Nature saw the fun they were having, she decided to make an appearance as

It was not too long after the games were all set up that it started to rain, forcing us to stop many of the events. The Waterslide and Dunk Tank were put on hold in the early afternoon, and the rain deterred many people from coming down and enjoying the events.

nothing to do during the rain. Throughout the day, soccer was a perennial favourite of children and adults alike. Most of our other events did not close down during the wet weather either, so kids could run our various races and tug on our various ropes throughout the long shower.

We were given clearance to re-open the dunk tank and waterslide in the afternoon, but that victory was shortlived, as the rain started up again. We were forced to close these popular events for a second time.

In the mid-afternoon, we were given the unfortunate news that events were all closed for the rest of the day.

But you can't keep an Engineer down. During the shutdown, some of the volunteers went to POETS for a private screening of "Happy Gilmore". Others shrugged off the rain and had a good time playing frisbee with the

Our perseverance payed off. The sun finally made its way through the clouds, and the organizers asked us to re-open. We filled up the dunk tank. We hauled out the tug-of-war We tacked down the waterslide. We pulled out the racing tables. We ran mini mini-olympics for all the children who were left.

The final act of the day came at This is not to say that there was 7:00 in the evening. The winds were unpredictable, high, and blowing in a very dangerous direction. We could not guarantee the safety of all the people who would come to watch the fireworks, so unfortunately they were cancelled. We packed all our equipment up, and headed home, after a long day.

> The Canada Day directors, Andrew Johnson, Mia Lafontaine, James Sinton, and I (Micah Potechin), send out our thanks to all the people who volunteered through the sun and the rain. Special thanks go out to Will Patterson and Navindra Persaud, who were two of the last remaining volunteers from any faculty at the site, and to Chris Bardon and Jenn Motuz who helped clean up on July 2.







Royal Society recognizes Waterloo

ROYAL from page 1

His work is marked by many distinctions, most recently by a Killam award for the years 1997-1999 to work on a project entitled "Making Sense: Coherence in Thought and Action." His new book on the philosophy of science as applied to medicine is entitled How Scientists Explain Disease."

* "Graham Gladwell, civil engineering, has gained international recognition as a researcher, lecturer, author and editor in three areas of applied mechanics: vibration analysis, inverse problems in vibration and contact problems in elasticity theory. His interdisciplinary research, which applies mathematics to engineering problems, has led not only to the solution of important technical problems in all three fields, but also, through his monographs, to the unification and codification of research

in these fields. His notable achievements include the qualitative characterization of vibrating systems, the definitive solution of inverse problems for the vibrating beam and the solution of contact problems by the systematic reduction of the governing integral equations to Riemann-Hilbert problems."

* "Mark Zanna, psychology, is one of the most prolific, cited, and innovative social psychologists in the world. His work is of both theoretical and practical importance. His major research interest

University Ave.

is the social psychology of attitudes. He has studied the bases of people's attitudes toward smoking, immigration, various ethnic groups, and social policies such as affirmative action. In many of these contexts, he strives to understand when and why people's beliefs conflict with their actions. In recent work, he has studied why people drive when intoxicated or engage in unprotected sex, even though they know the hazards."

He doesn't drink beer He doesn't eat wings But he's willing to learn He's a Weaver's Guy! Ryan Bayne, 2B Computer Engineering Columbia St. Weavers St. Weaver's is located ← in the WCRI Student **Housing Complex**

IRON®WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

> **Editor-in-Chief** Ian Tien

Assistant Editors

Ryan Bayne Raymond Ho Phong Loi Jason Wong Diliny De Alwis

Web Editors

Jessica Lee April Blayock

Advertising Managers

Micah Potechin Pamela Yau

Layout Editors

Kris Vorwerk Nitin Jain Margaret Parkhill

Photo Editor

Dave Learmonth

Staff

Micah Potechin Jason Jackson April Straus Rob Harper Aaron Egier Ian Pollock Jack Maynard

Contributors

Alan Cannistraro Greg Fyke Jennifer Motuz Mike Muffels James Chang DJ Swan Mark Cesana

The Iron Warrior is a forum for editorial and information articles published by the Engineering Society. Views expressed in The Iron Warrior are those of the authors and do not necessarily reflect the opinions of the Engineering Society. The Iron Warrior encourages submissions from students, faculty and members of the university community. Submissions should reflect the concerns and intellectual standards of the university in general. All submissions, unless otherwise stated, become the property of **The** Iron Warrior, which reserves the right to refuse publication of material which it deems unsuitable. The Iron Warrior also reserves the right to edit grammar, spelling and text that do not meet university standards. Mail should be addressed to The Iron Warrior, Engineering Society, University of Waterloo, Waterloo, Ontario, N2L 3G1. Our phone number is (519) 888-4567 x2693. Our fax number is (519) 725-4872. Email can be sent to iwarrior@engmail.uwaterloo.ca. Visit us on the web at www.eng.uwaterloo.ca/groups/ iwarrior/



Waterloo engineering runs a slip and slide for children during Canada celebrations

Do You Know What Your **Children Are Watching?**



Riding the Edge MICAH POTECHIN 3A Systems Design Engineering

It's here. Half the new televisions being made are being equipped with it. It's called the V-chip. It's meant to block out television violence for parents who are too concerned about what their children are watching to let them watch, but too lazy to monitor it themselves.

But does it work? And further, is it being used properly? Well... no and no. About three-quarters of violent children's shows don't carry the "FV" (Fantasy Violence) label.

It's understandable that parents would want to shelter their kids from the graphic violence and gore that happens on late night television, but why would the V-chip need to be used to censor cartoons? When we were growing up, cartoons were as violent, if not more, than shows today, without the need for a V-chip?

If I asked you to name the shows you watched when you were 8 years old, I'm sure you would all come up with the same answers.

You watched "He-Man". You

"She-Ra". "Thundercats" amazed you. "G.I. Joe" and "Transformers" were the coolest things on earth.

So what is the difference between those cartoons and the ones that children watch today? The shows still follow the same format:

- 1) Bad guy comes up with clever
- plan. 2) Good guy discovers plan and
- attempts to foil plan 3) Bad guy captures good guy and all hope seems lost
- 4) Good guy's friends come to the rescue, save good guy, beat bad guy back, and leave enough open in the plot to allow for the next episode.

The difference between television shows from 15 years ago and ones today comes in the last 5 minutes of the program.

He-Man had his floating magician friend, Orko do it. She-Ra had that annoying guy Lo-Kee who hid in every episode. Thundercats had Snarf. G.I. Joe and Transformers did it too. It was the moral at the end of each episode. It taught us such valuable lessons as "don't play with matches", "if you help someone, they will help you back when you are in need", and "sometimes it's okay to be scared". How were they able to do this Each show had an properly? educational consultant whose job it was to ensure that there was a lesson to be learned in every episode.

If you don't believe me, look at the credits. The educational consultant for He-Man is Donald Roberts, PhD.

woke up early Saturday morning for He's a communications professor at Stanford University. He says that He-Man creates a sort of antiviolence by only fighting when it's absolutely necessary, and by never killing another living creature (or pseudo-living, in the case of Skeletor, his nemesis).

> Contrast that with today's children's shows: "Mighty Morphin' Power Rangers" averages 200 acts of violence per hour. That's more than three acts of violence per minute, on AVERAGE! Do you think they've got themselves an educational consultant?

> What happened to these days of yore, when cartoon violence was not the central point of the show? What happened to lessons in shows, what happened to teaching children to do the right thing, even though it seems to be extremely cheesy when viewed 15 years later? At what point did we degrade to this level?

> Parents have a choice in what their children watch. They could opt, as they did when we were children, to have input into what we saw on television. But instead of taking an active role in this increasingly large part of their child's development, they have decided to entrust it to a small computer chip that doesn't even work. The V-chip is nothing more than a half-assed attempt to try to get children to watch only what is deemed "acceptable" for them to watch, by passing responsibility of children's viewing habits from the parents to the television.

Imprint "hostile" towards students

Volunteers "slandered" at meetings

Kieran Green, former editor-inchief of the UW Imprint, has contacted the Iron Warrior to express his concern over the current status of his former newspaper.

He accuses the Board of Directors of being negligent and the current editor-in-chief, Tara Hillis, of lying and being incompetent.

In his letter he asks Waterloo engineers to attend the Imprint's annual general meeting.

Many engineers have had mixed feelings about Kieran Green, who during his tenure as editor-in-chief of the UW Imprint was highly critical of Waterloo engineering, alleging that the Faculty of Engineering was an "archaic institution" and that the Waterloo engineering society was "full of rot" (http://imprint.uwaterloo.ca/ issues/092898/2Forum/ forum01.shtml).

I am writing here to inform you about a major problem happening this very moment here at UW.

It concerns Imprint.

I know many of you do not ever read Imprint but I hope that, at the very least, you share my belief that Imprint is meant to be a student's newspaper, open to every student.

I hope you belive this, because I have to tell you right now that it

The Imprint is no longer in the hands of students, or even people who care about student needs.

Imprint has become a place hostile to students.

Already, one member of the editorial board this term has resigned, another three or four section editors are ready to resign, several students who have been valuable hard-working volunteers in the past have simply walked away, and potential new volunteers have been turned away.

Many staff members are afraid to speak out for fear that they will be ostracized, or even kicked out of Imprint.

That's right.

Did you know that you could be banned from Imprint for simply walking in to a staff meeting and criticizing the newspaper?

Does that sound like freedom of the press?

The current Editor in Chief has not been at UW since 1992, and when she was here, she never worked for Imprint.

She seems incapable of handling criticism.

Volunteers who challenge her are ignored or even insulted.

She does not understand the way the paper works, and frequently exceeds her authority,

freely changing and even lying about Imprint policies to suit herself.

The two permanent staff are two middle-aged women.

They have openly expressed their distrust of all students.

Volunteers who are vocally critical of the paper are slandered at at meetings - but only if the volunteers in question is not present.

They never have the courage to confront students themselves.

The Board of Directors, who are ulitmately responsible for the running of the newspaper, have been totally negligent in their duty.

The President refuses to even acknowledge that a problem exists.

The three current members (there should be five) are not even registered

Two of them haven't been on campus since winter term.

The Board has not met even once since winter term.

Staff performance evaluations, one of the duties of the Board, have not been conducted for over two years. The By-laws of Imprint, which legally must be available to you the membership, are kept in a locked file

Under pressure, two of the three members of the Board have said they will resign before the end of their term in Spetember.

However, they are not willing to do this in a Special General Meeting where you, the students can chose your own Board members.

Rather, they are going to do it in a closed meeting, where they can chose their own replacements, and censor any candidate they do not like.

Even if you have never read or worked for Imprint, I am asking you to help all your fellow students who

I am asking you to help take back YOUR student newspaper.

Write letters to the Imprint Board of Directors, demanding that that they resign in an OPEN GENERAL MEETING, where a new Board can be DEMOCRATICALLY elected.

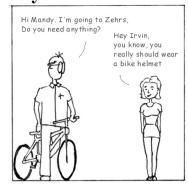
Write letters to Imprint advertisers, asking them to stop advertising with Imprint until the situation is resolved.

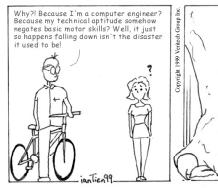
Most importantly, show up at the Annual General Meeting in September if you can (this exact date of this meeting MUST be announced in Imprint before tha actual date).

At that meeting, vote in a Board of Directors who will be RESPONSIBLE, who will CARRY OUT THEIR DUTIES, and who will return the University of Waterloo's student newspaper into STUDENT

Kieran Green Imprint Editor in Chief 1998-99

myWaterloo







Your New Vice-President Education



Jenn Motuz

I can't help it. VP-Education still looks a little strange beside my name, but there's a first time for everything. A lot of this is a re-cap of my platform of what I intend to do as VP-Ed. I wasn't expecting to be acclaimed for this position when I wrote it, so I'm really keen on getting feedback from people as to whether or not this is the direction they want me to take.

Before I get into the nitty gritty, I just wanted to say that I'm really looking forward to these next 16 months, and I'm impressed by the number of people who have already approached me saying they're interested in helping me with the position. There are a lot of things that I'd like to do, and if anyone has specific things they want to work on, I'd be happy to create a directorship position for them – let me know (imotuz@engmail)

So what do I want to do?

I see two primary functions as VP-Education: liaise with the departments and offer services to enrich the quality of our education (i.e. the internal conference idea put forth by Chris Bardon, improved resume and interview skills workshops, an academic side to Frosh Mentoring, etc.). DJ and James have been working on the department ties during their term, as has the Education Commissioner on B-Soc, so I will be meeting with them to figure out where we stand. I'm interested in getting feedback from both the Academic Reps as well as the Departments on how they feel their current systems work and which areas need improvement.

While department ties can only truly be forged on the school term, ties with other institutions are equally well formed at any time. One of my goals is to work with graduate admissions offices at the top business and engineering schools (including ours) to increase the awareness of our program, and consequently open doors for those of us considering further education. The University of Waterloo has an outstanding reputation within Canada, and I feel it is important to expand this reputation internationally. I feel a good first step in this is to work with the Alumni Affairs office to create a directory of alumni who would be valuable contacts both in the business as well as research areas.

Your New Vice-President External



Micah Potechin

Greetings to all. I'm thrilled to have been elected Vice President External of the Engineering Society. I am excited about the possibilities for the next sixteen months, a bit nervous as I think about the days to come, and extremely tired from the last two weeks or so of campaigning. This article, as I understand, is a forum for discussing what I would like to achieve during my term as

To improve the image of UW Engineering to other entities in Canada and abroad, we need strong ties with companies, with other schools, and with the community.

I will strive to introduce corporate sponsorship to the Engineering Society. Corporate sponsorship can serve a dual purpose. By providing services such as the Iron Warrior and the Yearbook with equipment, industries can help us maintain our reputation as the best Engineering school in Canada. At the same time, industries will know that they are needed and valued by us. Our name will be the first on their minds, and their name will be the first on ours.

Conferences are an excellent opportunity to show other schools our professionalism, our ideas, and our commitment to the future of Engineering Societies everywhere. For this reason, I think it is very important for Waterloo conference delegates to be the best ones our school has to offer.

I want to see a large variety of people attending conferences. To ensure that we send the proper people to each conference, I propose a method of selection whereby the selectors choose conference delegates based on their applications; not based on their names. I hope that this will encourage people to apply for conferences who may not have ordinarily done so.

The Engineers do a lot for the community, but we don't advertise our involvement nearly enough. I am looking to increase our involvement with the community through charities such as Habitat for Humanity, as well as making sure that the people of Kitchener-Waterloo are aware of how much we do for them.

I have lots of ideas for the future, but I need your support. If you have any questions or comments, please write me at <mipotech@engmail>. I like getting e-mail. I thank you for electing me, and I promise to do my best to take the Engineering Society to new levels of excellence.

Your New Vice-President Internal



Ian Pollock

Hi, my name is Ian Pollock, and I'm your new VPI. I'd like to thank all of you who took the time to come out and vote. I look forward to working over the next sixteen months making EngSoc a society that everyone feels a part of.

As the new VPI, I welcome the challenge of working with the new VPEducation, ensuring a solid foundation on which to build. I plan to make certain of a full directorate each term, with all positions having equal importance. This will allow the Engineering Society to have the most complete directorate with all tasks assigned and taken care of. I also wish to focus more on cultural diversity within EngSoc, in the hopes that this will address the interests of people not commonly found at EngSoc

In closing, I am excited about taking on the responsibility of the position, and spending time with the new exec and directorate, as well as each of you in the coming terms.

Your New President



Ian Tien

Incoming executives! Head for cover! Pheeeeooooooooo... Kablam! Kablam!

Here we are, the latest X-factor in your university education.

New executives mean uncertainty. Will we gel? Will we accomplish our goals? Will we act in your best

It's true: we've a lot to live up to, but I also think we also have a lot to offer.

As president, I have only one objective—improve Waterloo engineering.

Improve it any way we can.

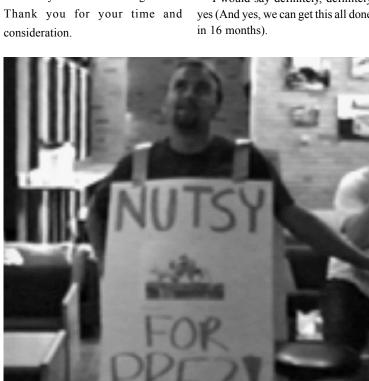
I want to start putting resumes on the web so employers can recruit students outside of co-op.

I want to create not-for-profit webhosting services for student companies.

I want to start digitizing hardcopies of course materials so they can be archived and made available on the web.

During this election, I have been often asked if I was on crack. Can all this be done in sixteen months?

I would say definitely, definitely yes (And yes, we can get this all done





Your New WEEF Director



Mark Cesana

Now that I was officially ratified (well once I lose my facial hair). I am proud to be the WEEF director for the next 16 months. There have been many changes to WEEF in the past year and it is important to keep some continuity from one term to the next. Having me as the WEEF director will hopefully benefit all of undergraduate engineering and keep WEEF stable in these times of

The changes I'm talking about are as follows: 1) a change to the investment portfolio, 2) a fixed rate to determine expendable amount, and 3) an Employer Matching Contribution (EMC) program.

At the Provost's Advisory Committee on Endowment funds the investment portfolio was changed to reflect a change in the market. There is now more room to hold more equity and less fixed income to allow the fund to take advantage of a global recovery and increase in economies that are driven by commodity prices (i.e. Canada). I will watch how this change affects the growth of the fund in comparison to the previous years and then advise the committee on how this change affects the Engineering Endowment Fund.

The fixed rate system of determining WEEF's expendable amount is also very new and something that is very important for securing WEEF's growth and its purchasing power in the future. This will be implemented next term and hopefully it will decrease the uncertainty about the amount of expendable WEEF has to spend that has plagued previous WEEF directors. If there are questions or concerns about this new fixed rate system then feel free to talk to me at the WEEF office or better yet come with your WEEF rep to the funding council meeting. At this meeting this topic will be discussed and any changes in the by-laws will be passed at this meeting. Every class has a vote so come out and voice your oninion WEEF is a completely student run organization and it is important that you make your voice heard.

The third major change involves creating an Employer Matching Contribution. This program is not as far along as I had hoped it to be. The person in charge of this program has recently resigned her position and it will have to be taken over by someone on A-soc. I am currently trying to enlist the help of some Assistant Weef directors who can take over this program and make sure it succeeds. Having added donations from coop employers will benefit WEEF greatly and add extra incentive for students to donate money to WEEF.

Thank you for your time in reading this piece remember...WEEF is good.

Ciao for now, Mark Cesana A-Soc WEEF Director



Midnight Sun 5 and its competitors are lined up in front of the White House in Washington D.C.



The Midnight Sun team is working hard to prepare for Day 3 of the race. Underneath the tent, from left to right, are Eugene Huang, the strategy expert and Simon Foo, the electrical manager.



Midnight Sun V crossing the finish line in Macon, GA, on day 6

UW NEWS BUREAU

Midnight Sun V finishes 10th in Sunrayce 99

WATERLOO, Ont. - After weathering stormy weather and cloudy days, the University of Waterloo's Midnight Sun V solar-powered race car finished in 10th place in Sunrayce 99.

The overall first-place position went to a car from the University of Missouri at Rolla, with a total elapsed (cumulative) time of 56 hours, 16 minutes and 44 seconds (56:16:44) and an average speed of 25.30 mph.

Unofficial results of the 29 student teams in the race were released this afternoon.

Under Sunrayce 99 rules, the team with the lowest total elapsed (cumulative) time wins the race.

Sunrayce 99 concluded its 10-day race (including a day of rest) through the southeastern United States with a nonstop 82mile route from Central Florida Community College in Ocala. Fla. to EPCOT at the Walt Disney World Resort in Lake Buena Vista, Fla.

Other Canadian institutions in the race were Ecole de Technologie Superieure in eighth spot with a total elapsed time of 70:03:58 and an average speed of 20.32 mph, and the University of Toronto in 19th place with a total elapsed time of 82:44:18 and an average speed of 17.21 mph.

Sunrayce 99 is a biennial solar car race travelling this year from Washington, D.C. to EPCOT at Walt Disney World. The race features college and university teams from across North America that design, build and drive cars powered solely by electricity from solar panels. Travelling through five eastern seaboard states, Sunrayce 99 is the fifth solar vehicle race staged by its three sponsors the U.S. Department of Energy, General Motors and EDS.

UW Engineers as United Nations Ambassadors



Maisie Gan 1B Systems Design Engineering

How would you like to become an ambassador to the United Nations for four days?

With this opportunity you will discuss the most critical issues facing the world today in a forum of up to two hundred other ambassadors, each representing a particular nation's interests.

You will be challenged to negotiate international peace and security, social and economic progress, and the preservation of fundamental human rights, while also defending your own national interests.

This is in essence the goal of Model United Nations (MUN) conferences. The simulation provides the opportunity for students to experience the nuances of international relations and to appreciate the purpose of the United Nations.

In February of this year, a contingent of about twenty University of Waterloo engineers represented Sri Lanka at the Harvard National Model United Nations hosted by Harvard University in Boston, Massachusetts. This conference drew more than 2000 university students from North America, South America, Africa, Asia and Europe.

The structure of the conference very much paralleled that of the actual UN. Each committee discussed prevalent issues through formal and informal debates in hopes of reaching consensus by forming UN resolutions.

Some of the issues discussed at the conference were the Kosovo crisis in Special Political and Decolonization Committee, the ethics of genetic testing in the World Health Organization, ethnic conflict in the Economic and Social Council for Asia and the Pacific, and malnutrition in the UN Children's Fund (UNICEF).

Throughout the conference, our delegates were challenged to put on two masks. One represented the views of Sri Lanka and the other represented their abilities to reason and to analyze the issues discussed. The combination of these two masks was crucial in the successful simulation of the UN.

In addition to increasing their awareness of current issues, our delegates gained valuable public speaking, writing and consensusbuilding skills. The conference also provided the opportunity to interact with other highly motivated university students.

Now what does this have to do with engineering?

It is a fact that engineers are less involved in politics than any other professional occupation. This poorly reflects the social responsibility for which we proudly stand.

An engineer has the responsibility to speak out in an ethical manner in social and political controversies. To uphold this responsibility, an engineer must understand the needs of his or her community, whether it is the local community or the global community.

Recognizing the importance of engineering influence on public and international policies, our delegates took on the challenge of participating in MUN. The experience gained from the conference is a start to providing a strong foundation of skills needed to become leaders of tomorrow.

However, there aren't enough opportunities existing engineers to explore politics, international issues and to improve their public speaking skills.

I believe that participation in conferences such as MUN will take us in the right direction in recognizing the importance of being socially responsible and increasing political involvement among engineers.

A group of former delegates is undertaking preparations for next year's conference. If you are interested in participating or learning more about MUN, please contact myself mgan@engmail.uwaterloo.ca. I challenge you to take a walk on the artsy side and explore this exceptional opportunity.

Word FX: Hot, hot, hot!

Brought to you by April Straus and Phong Loi

Across

- 1 Fed Hall event
- 6 Summer vampire
- 9 Oakleys
- 15 DickeeDee
- 16 Can you
- 17 Uninvited picnic guests
- 18 Grill your dogs
- 20 Iced
- 21 Bad for the ozone (abbr.)
- 22 Not structurally sound
- 23 Modern discus 26 Summer fruit
- 29 Sticky
- 30 Local ice cream
- 31 Party, furniture, stones
- 32 Sun's gift
- 33 Back, heat, sun
- 34 Glass ingredient
- 35 Riding the waves

Down

- 4
- Weaker than gamma
 - "Wish you were here"
- Pick your own
- Childhood business
- Tropical drink accessory
- 8 Factor out the ice
- 10 Travel time

- 11 No sweat sport
- 12 Ideal work term location
- Blazing tide
- 15, 30, 45
- Wind dependent
- Cutoffs
- 27 Sleeveless
- Skintastic
- 30 Greek footwear

President's Report



ALAN CANNISTRARO

Can you imagine - 16 months as president of the Engineering Society

In the last year and a bit, a lot of positive change has occurred within the Engineering Society.

We've added (and filled) about fifteen new directorships to expand the scope of our organization.

We've restructured the yearbook and handbook - the two biggest sources of corporate revenue for the society as well as changing how Iron Warrior receives its advertising.

We've begun a new fall charity event to give Engineers more exposure in the community.

We've built up stronger relationships with the faculty, the Federation of Students, and the other student societies on campus.

We've initiated and approved a new look for the foyer of Carl Pollack Hall to give the main entrance to Engineering a fresh look.

Most significantly, we've added the new position of VP Education to the executive roster to grow the society in new directions to focus on the needs of even more Waterloo Engineering students.

Some things are still in the works.

We're still examining the possibility of putting novelty sales online to expand our customer base to include the dozens of requests we get a year from alumni outside of the Waterloo area who are looking to replace their baseball caps and hockey jerseys that were purchased years ago.

New ways of presenting the Tool to Engineering students are still being looked at (but that's been in the works for years).

By the time you read this, we will have found out who my successor is.

I have full confidence in both candidates for the position, Ian Tien and Chris Bardon, and I wish my best to both of them.

A warning to both candidates since I'll be around for another term, you can count on me giving you a hard time during your first term as

To wrap up my term, I will be putting together an accountability report of all my accomplishments and failures over the past 16 months.

I will be presenting this at the final council meeting on July 21st in

I'll also be putting together some mandates for the new exec to try and force my views onto them through the vote of council. Mwooo hooo hoo haa

I want to take this opportunity to thank everyone that I have worked with as president.

My exec has been extremely supportive - both during the good times and the rough times - and although we didn't always see eye to eye, we always did the right thing.

Directors have been phenomenal in coming through for the society.

Only on the very rarest of occasions did one of the exec need to step in out of necessity to help a director.

The faculty has also been great to deal with. They not only treat us as responsible adults, but as equals in all matters involving students and our education.

A little advice that I would like to pass on that was passed on to me: "Don't say you don't have enough time. You have exactly the same number of hours per day that were given to Helen Keller, Pasteur, Michaelangelo, Mother Teresa, Leonardo da Vinci, Thomas Jefferson, and Albert Einstein."

- H. Jackson Brown

So, in a nutshell, thanks for the memories - I'm outta here.

VPI Report



JENN MOTUZ

I guess this is it for me as VP-Internal. It's been a whole lot of fun, and I'm really looking forward to the next 16 months to see what the new exec has in store for us.

I'm writing this on Canada Day while drying off from the Dunk Tank, so the new exec hasn't been picked.

I know everyone who ran would do a good job, so no matter what the results, we're looking at a good group of people.

Speaking of a good group of people (and my need to write better segues), Kudos to everyone who came out to

volunteer on Canada Day, and Chris and Oli for organizing the most directors.

AJ, James, Mia and Micah put in several dozen hours organizing the events and rounding people up to help on the big day, so hat's off to

Although the weather didn't cooperate, we all had a lot of fun.

There are a lot of other directors who have been doing a great job this term, and I know I don't have time to name everyone, but a couple people have really stuck out lately.

Dave, Brad and Matt have been organizing some extremely successful them for helping us get a bit of your eyes open. exercise and a lot of fun.

Melanie and Margeret have been this term, I had to mention them.

especially to the Canada Day successful External Special Event in years: the 100-person Canada's Wonderland trip.

> Here's to more of these great events in the future.

> Speaking of which, there are some big events still upcoming: the Mudbowl (July 10th), Semi-Formal (July 16th), Arts & Fashion Show (July 22nd – keep your eyes open for the details) lots more external and internal special events, the Charity Wheelchair Basktetball Tourney (July 25th), and the End of Term Pubs and other festivities.

One last thing before my cheezy, athletic events rambling goodbye: Directorship throughout the term so thanks go to Application time is coming up so keep

The Engineering Society is only as Our publicity folks are often great as the people involved, so if you overlooked, but I've had so many have ideas, organization, creativity people comment on how great and/or a little extra time, come on out and be part of it!

So this is it. I just want to thank One last mention goes out to everyone who I met or worked with exec with you guys.

these past sixteen months.

You guys made this term a lot of fun and an awesome experience.

Special thanks go out to all of my internal directors these past terms who organized some of the greatest events around.

To every single person enrolled in UW Engineering: It was my intention to make you feel like this really was YOUR society.

I hope I succeeded a little.

As VP-Education next term I'll have more of a chance to deal with the academic stuff that affects everyone, so if there's anything you would like me to do, don't hesitate to suggest it.

Finally, thank you to the rest of my exec. Greg, Al and Mike, you were great to work with and really made my exec term a really great experience.

I'm going to miss sitting on

Education Commissioner Report



JAMES CHANG

The midterm milestone has just

With about a month left to go and final exams in plain sight, the final stretch is one which every student knows all too well.

As you hit the books, you hope for hours of quick and painless study sessions (accompanied by midnight study breaks).

Understand all the notes?

Finished all the previous exams? You bet.

Great!

some reruns of "I Dream of Jeanie" before calling it a night.

Tomorrow's the exam and catch: 80%. you're going to ace it.

Oftentimes these wishes come true—- contributed by faithful homework writing, careful notetaking, a cup of that 100% Columbian stuff, wonderful TA's... and of course a great professor.

However, many times it doesn't go as smoothly as I have depicted

Don't understand the lecturer? Do you find the course text utterly useless?

Can't find your TA's? What do you do?

Well have I got news for you— - course critiques!

Right about now, your academic reps should be conducting the critiques in each of your classes.

With the feedback that you give, it will provide valuable information for the professor to

Now take a break and watch determine what s/he is doing well and what s/he needs to improve on.

BUUUUUUUT... there is a

In order for the critiques to impact the professor, there must be at least an EIGHTY-PERCENT student representation.

Eight out of 10 students must show up to class, fill in the bubbles and write some comments.

Not so hard, eh?

Why is such a high turnout required?

You'd be surprised to see how much is riding on these critiques.

Among other things a professor's salary can be affected with a good or bad course evaluation.

So go out there and make your critiques count.

Okay, on to other stuff.

As one of my challenging goals this term, I am looking to create a committee to look at the new design component requirement thrust upon engineering institutions province-

As the PEO have upped the ante in the engineering accreditation criteria, UW needs to establish a very strong link with companies in the engineering field.

This will enable many opportunities for undergrads to work on actual projects with companies to fulfill their design criteria.

More info to come in the next IW.

On to other stuff Part Deux. VPEd.

The elections were on July 7th and I wish everyone who ran for the newly elected position the best of luck!

I believe that as the role of VPEd continues to evolve, UW Engineering will see an EngSoc with a clear and dedicated focus on education.

That's my spiel for now and don't forget to fill out those course critiques!

VP External Report



GREG FYKE

It's hard to believe that my term as VPX is finally coming to an end.

What am I going to do with all of this extra time? Find a part time job? Relax, sleep in and watch TV?

No! Of course not. I can't just stop.

I found out during my term, the difference that one individual can really make.

Look around you and many of the things that you take for granted have been thought out and organized by someone willing to give up a bit of their free time.

I'm happy to see the interest this year in the engineering society executive.

This year's election promises a plethora of excellent candidates.

I wish you all good luck in your campaign.

It is an experience you won't forget.

I hope to continue to raise the level of professionalism within the engineering society. This is absolutely crucial for the evolution of

Externally, we must be viewed with the same level of respect you would give to a business. We are a business after all - one for the engineering students of the University of Waterloo.

You can't expect to encourage strong industry ties when those around you cannot be taken seriously.

At the same time, to keep everything in perspective, let us not forget how to have fun.

I doubt that will be a problem.

I'm looking to make a few connections and plan to start off next year with a bit of a show.

As mentioned earlier, I have been working on inviting a Canadian corporate leader to come speak at the University of Waterloo and lend us some insight.

Oh yes, the media will be there, providing excellent publicity for the speaker's company and highlighting the University of Waterloo.

I want to see a big banner across the front page of tomorrow's paper and a ten second slot on the nightly

Why not? We have a great school here and an incredible pool of talent. Be proud! You have every right to

Don't be fooled into believing that everyone knows about us yet because they don't.

We are still young in the big picture and I don't have any problem raising my voice to get noticed.

I extend a special thanks to all of my directors. You are the ones that make it all happen.

For those of you who took that extra bit of time for the benefit of the society (you know who you are), I congratulate and I hope that you will continue to put your full effort forward.

Thanks again, it's been fun.

WEEF Participation Spring 1999

Class	Refund	Enrollment	% Participation
1B Chemical	19	73	73.97%
1B Electrical	34	84	59.52%
1B Env. Civ.	3	36	91.67%
1B Geological	0	7	100.00%
1B Mechanical	33	89	62.92%
1B Systems	6	85	92.94%
2B Civil	30	82	63.41%
2B Computer	73	161	54.66%
2B Env. Chem.	8	27	70.37%
2B Mechanical	40	85	52.94%
3A Chemical	21	60	65.00%
3A Electrical	22	61	63.93%
3A Env. Civ	10	22	54.55%
3A Geological	4	6	33.33%
3A Mechanical	29	62	53.23%
3A Systems	20	78	74.36%
4A Chemical	19	53	64.15%
4A Civil	30	69	56.52%
4A Computer	33	97	65.98%
4A Electrical	25	74	66.22%
4A Mechanical	12	61	80.33%
Total	485	1405	65.48%

WEEF Report



MARK CESANA

I would like to start off this article by reminding everyone that WEEF proposals are due today. If you haven't written one out or haven't planned to, then it is probably too late to do so. But if you are almost done one then you can probably still get one in by the end of today.

The proposal presentations will take place on Monday, July 12 and Wednesday, July 14. Then on Monday, July 19th the funding council (all of the WEEF reps from every class) will meet and decide where we spend our money.

The participation numbers are also in for this term and they don't look too good. In the fall term (98)

we had the highest participation rate in 5 years. This term's participation, however, is near the bottom. We saw a 11% decline in participation. It went from 76% to 65%. This was mainly due to the increase in tuition and the new payment policies implemented by the University this term. I am confident that these participation numbers will go back up next term. I would like to congratulate the 1B Geo's for getting 100% participation for the second term in a row. Keep up the good work. I would also like to congratulate the 4A mechanical class for raising their participation 1% and cracking the ever elusive 80% mark. This is extremely impressive especially for a 4th year class. Remember that WEEF is a charitable organization and it is the best charity to give to because it gives back directly to you.

If you have any questions about the future of WEEF or suggestions on how to turn WEEF from good to great, then come talk to me at the WEEF office or email the WEEF people at weef@engmail.

A Tale of Two Conferences

Marc Rizkallah 1B Systems Design Engineering

There is no doubt that conferences are an experience for the "hardcore" - those who are unhesitantly willing to sacrifice a weekend of time (and sleep). That being said, and we being University of Waterloo Engineering students, this does not explain the shortage of conference applicants that the Engineering Society often experiences. I am not complaining as a direct result of the lack of competition, I have already attended three conferences, the two most recent of which were the First Year Integration Conference (FYIC) and the (deep breath) Engineering Student Societies Council of Ontario

Annual General Meeting (ESSCO AGM). Both conferences were highly enjoyable, of course, but a few significant differences distinguish them.

Both conferences adhere to the characteristic philosophy of most conferences: "play hard / work hard". They both last at least two days upon which events, guest speakers, and seminars are planned all day, usually from 9:00 to 5:00. Afterwards, partying and socializing take over the evening, usually in the form of a nice supper, "hospitality suites" (alcohol-related hour-long social events), and outings at local clubs or bars. In both conferences' cases, however, it was the fascinating and absolutely hilarious people that rendered them so memorable.

The ESSCO AGM occurs in the

summer of every year - this year mandates for the upcoming year, etc.) the weekend of March 6th. The interested in the organization. organizers picked that timeslot, as "adjusting".

purpose: the FYIC is meant to inform the "duM fRoSh" about various EngSoc-related issues ESSCO AGM's purpose is somewhat more specific and defined: to perform "political a new executive, create new

Waterloo hosted it a month ago, on As well, the FYIC is targeted towards the weekend of June 5th. The first first-year students, whereas the ever FYIC was run by McMaster ESSCO AGM is open to anyone

As a frosh, I personally learned opposed to one in the first term, more from the FYIC, because the because they didn't want to have it information was more relevant to me. too early while the frosh were still One of the most interesting aspects of the conference was comparing the The major difference between way that Engineering Societies from the two conferences lies in their different universities operated, and to share ideas to benefit each university. We also had fascinating guest speakers come to talk to us about (such as conferences), whereas the other conferences, engineering competitions, and other issues such as Frosh week and other events.

The ESSCO AGM encouraged a maintenance" on the provincial far more active participation, as ESSCO organization (e.g. vote for demonstrated by the number of times we had to vote on decisions: for

example, we had to come up with a series of motions to vote on in the "plenary session", the last component of the conference. I also felt a certain sense of pride and power by being a member of the hosting university: for once, we were the ones leading conference participants to various obscure locations on campus!

These differences do not suggest that one conference was particularly "better" than the other - they were both worth going to, for both allowed me to meet new and interesting people, as well as acquire valuable experience and knowledge. Indeed, on the whole, it is generally agreed that both conferences were splendid successes.

The Sandford Fleming Foundation **CPH 4306** (519) 888-4008

Waterloo Campus Activities

sff@dean

Technical Speaker Competition

The Technical Speaker Competition was held on June 3 with finalists from five departments.

Congratulations to: Karen Wong, Systems Design To Pull or Not to Pull

Other Participants were:

Jennifer Motuz, Mechanical Engineering Stress Analysis of an Out- of -Round Boiler Vessel

Anthony Spick, Civil Engineering Safe Working Load for a Rod Lifting System

Bruno Bratti, Computer Engineering An Electronic Compass with Verbal Audio Output Bojan Rip, Electrical Engineering VPN Technology-An Overview of Current Market Solutions and Trends

Perfect Attendance



The Big Picture

RAYMOND HO ASSISTANT EDITOR

Life is all about motivation.

Everything we do, everything we don't do, and everything we achieve - it all boils down to one thing.

Motivation.

Given the proper sources of motivation, and given the proper state of mind for motivation, anything that is realistically achievable will be achieved.

We control our own actions.

While the existence of luck, chance, and fate cannot be entirely dismissed, the things we do of our own free will have a far more profound effect on our lives.

Every action is a decided action; nobody does anything against their will.

And behind every action there is some form of motivation

Then why would anyone ever do something with negative consequences, you

It is because the consequences of not doing it are worse.

You might say, for example, that you don't like to run.

It makes you tired.

Then in this case, your motivation for not running is that you won't be tired.

If, however, you were being chased by a 500 pound grizzly bear, you'd have to choose between two negative consequences: be

Most people would deem not being eaten as sufficient motivation to run faster than they've ever run before.

Another good example is in studying.

Let's face it, nobody likes to study.

Yet come exam time, something magical happens and we are able to study for 15 hours at a time, learning entire branches of engineering in mere days.

The proper motivation obviously exists at times like these.

Using this mind set it is easy to recognise that everything we do is driven by some form of motivation.

We all have goals and desires that motivate us to do things.

Merely having goals, however, does not necessarily mean that we will be motivated enough to achieve them. Even more important is the value that we place in each of our goals

Many of us no doubt want to do reasonably well academically.

Yet it appears that this not something that many of us want badly enough.

If getting good marks was the greatest honour in life, the holy grail of humanity, then you can be sure that class attendance rates would be nearly flawless and class averages would be phenomenal

This is not the case, however, because many people value other things more highly than their grades.

So the trick to motivation is in recognising the personal value of your goals, and learning to place a lot of value in them. It is a matter of learning to want things badly enough to do something about

Set some goals, convince yourself that there is good reason to achieve them, and hopefully you will be motivated enough to

For many people, the sense of accomplishment, control, and power that comes with achieving personal goals is motivation enough.

So give it a try. Start with a small goal like attending all of your classes.

Go out and do it.

You might be surprised at the feeling of satisfaction that you get.

And once you've tasted what it is like to be motivated, you might even want more. Use this to motivate yourself to greater heights

If that doesn't really appeal to you, then motivate yourself by rewarding yourself with a lollipop or something that suits your

Regardless of the sources of motivation, the most highly motivated individuals are the ones who value all of their goals highly.

Because they value their goals so highly, these people usually achieve their

So life is all about motivation.

You want something, you figure out why you want it, and if it's worth it you go out and get it.



BUDS

Dear Engineer,

Are you interested in teaching? Do you want to exercise your interpersonal skills? Do from oblivion?

If you said "yes!", you want to join BUDS.

We are a group of students who run a volunteer drop in centre for local high school students... and we are looking for volunteers (students, faculty and staff) to tutor high school students, coordinate our drop in centre, be on the organizational team or design and be maintain our web page.

We will be running the centre in Uptown Waterloo, starting up again in the fall (but

there is much to be done this term so we can start smoothly when the school year starts!)

The time commitment involved is in the you want to single-handedly save the world ball-park of 2-4 hours/week, less if we get a very enthusiastic response.

> We also have room for those of you who aren't able to make that type of commitment, but who do want to help out occasionally.

We are having an information meeting on Wednesday, 14 July at 4:30 PM in DC 1304.

Our phone number is 886-5160, and we can reached email buds@calum.csclub.uwaterloo.ca.

Hope to see you there!

Sam Lisi

A loud moment of silence

DILINY DE ALWIS ASSISTANT EDITOR

I sit silently in a moment of contemplation.

It's a hot June... no, a cold June.

This month, the weather is acting like a pendulum swinging left to right; not unlike life.

Our days on campus are good and bad... our time and money spent wisely

Have you ever noticed how trends change before your eyes?

About five years ago people dreaded the 'evil' Ninja Turtles.

Today, we are bombarded by the Mystic Knights or Star Wars

collectibles.

The media has stepped up in making clones of the average individual.

Today, almost everyone owns something from 'Gap', butterfly clips, or Star Wars memorabilia.

Why do we do it?

Why are we constantly bombarded by insistent ads for night-clubs, drinks, food, clothing, and lifestyle?

The CBC is currently covering a news story regarding an audio beer commercial that has been placed in washrooms in some Toronto restaurants.

Has the commercial industry no

Don't we at least deserve to have one moment of silence when we attend to private matters in the Conductor). washrooms?

It appears we do not.

washroom and 'Hail Bloody Mary'? I have yet to recover from the

fearful childhood myth. Thoughts of childhood bring back

memories of life in the big city. A child who dreamt of becoming an Astronaut then an Architect and

later... much later... an Engineer. I'd like to meet a single person

(who didn't have engineers for parents) who dreamt of becoming an Engineer (and I don't mean the Train

I know I didn't.

Engineering was far from my mind Speaking of disturbances in until my last year of High School.

Where would everyone be who ever turn of the lights in the chose Engineering, had they not

That is a question to dwell on.

On bad days, when following a career in Engineering brings one to the pits of hell (i.e. Studying for a Biotechnology midterm), I wonder what would happen if I suddenly dropped everything and became a

Would that not be the pleasant

No worries... simply to follow the task of getting in tune with the more elemental or basic things in life.

Then I remember what I'd really be giving up... and resign myself to my chosen fate with glee!

So, what was my point in all this?

Humph... I don't know.

Live a little

Life can be monotonous and dull... be your own person...

don't let the media boss you around... But most of all; remember why

you are here and what you are working towards.

Everything will balance out in the