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Scan this with your phone, webcam or anything to get the digital copy of the fishwrap.

The Final Wrap

This may be our last fishwrap for this term, but don’t think arbitrary numbers on a calendar are going to stop us from printing more issues of this glorious periodical. There are plans to release a couple Co-op Fishwraps. These would be posted on the ESS website. Also, we hope to email them out to all students on co-op or post it on the Moodle site. We will keep you posted. Just remember, if you have anything interesting to say, send it to fishwrap@engr.uvic.ca. We will print anything (almost).

Days until end of classes!

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Pic of the Week

Heard a prof or student say something funny? email quotes to fishwrap@engr.uvic.ca

“This table is not an elephant, only if you want it to be.” - Dr. Bhiladvala, Mech 345

“The last one looks like a condom” - Dr. Firmani, Mech 335

[after completing a solidworks model] “and that’s all the mating an engineer ever needs” mech 410 student

Disclaimer: The views expressed in this paper are by no means the views of the UVic ESS or any member of the UVic Engineering department, and therefore should be taken solely as opinion rather than policy. ERTW!
Mark your Calendars!

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No more Pennies, (I guess I now need a nickel for your thoughts??)

No more carrying pieces of copper around to pay for... well, you need a tonne of pennies to buy anything, and they aren't copper. All pennies from the last decade are 94% steel. At 1.6 cents a penny, that is some nice steel.

Pennies by the numbers:

- cost 1.6 cents per penny (that's an instant return of 60%. I don't know why more people don't invest in pennies...)
- 30 billion in circulation
- in the past 30 years they have gone from copper to zinc to finally steel

Fun fact: the honda civic is very versatile and convenient unit of measurement for mass and volume. You can also use honda civics as a unit of time but that requires extensive use of special relativity.

So you ask, "Fishwrap, what can I do with my plethora of soon to be worthless pennies?"

Well I'm glad you asked...

This list is by no means exhaustive. Email us with your creative uses for pennies. Also, we recommend not doing any of the following...

- melt them down, pour on unsuspecting student. You have a new copper (mostly steel) statue. Unfortunately the pose is almost always the same... pure agony.
- fill sock. Swing like a mace.
- heat sinks for xbox
- quarters (drinking game)
- shrapnel
- flathead screwdriver
- determine terminal velocity of a penny by dropping off a large structure...
- superglue on a surface in a high traffic area. Hilarity ensues as people try to pick it up.
- if it's pre-1996, hoard it. Eventually the price of copper should go up enough that you will be a billionaire... or a crazy lunatic with a lot of old pennies.
- make it rain

~D Fresh
Steel and Concrete

You are the steel reinforcing to my concrete.
The tendrils and hooks that will hold my columns together in an earthquake,
that allow me stretch such great distances where I would normally fall apart.
Our chests breathe together as we are heated and cooled,
and our bond is clean, firm and integrated on a molecular level.
The salt in my veins may be caustic, but I will protect you from flames.
I will hold you up to stop you from buckling and bending under the weight of our world,
this giant high-rise of challenges and obstacles.
And my strength will ever grow, as I cure with time,
but yours is ageless, and superior.

~The Poetic Engineer
How To Make a Video Game

I keep hearing engineers and CSCs talk about wanting to program video games, but they have no idea how to program anything in C that doesn’t run only on the command line.

For those of you who are interested in exploring that side of programming, I recommend using the SDL library.

SDL (Simple Directmedia Layer) is a cross-platform low level C library for graphics, audio, input, etc. It also works out of the box in C++, and has bindings for pretty much any decent programming language. (Like pygame for python)

SDL is used in many commercial games, such as Cave Story, Super Meat Boy, Dungeons of Dredmor, Penumbra, World of Goo, and some emulators use SDL like Visual Boy Advance and ZSNES. SDL was designed by a lead software engineer at Blizzard, which makes it especially cool.

If you want to get into it, go to http://lazyfoo.net/SDL_tutorials/. There are some detailed instructions on installing the library on all major operating systems in many different development environments. As well as some well formulated tutorials to learn how the API works.

SDL is also actually already installed on the computers in the Windows lab. The files are somewhere like C:/GameDevLibs or something obviously named like that.

There are some better libraries for games, but SDL is a simple classic library and the interface of other more modern libraries like SFML (C++) have an interface which is very similar to SDL’s. SDL can also be used as a cross-platform access point to OpenGL, which is its main purpose for advanced users. SDL is also approved by apple to be used for apps on their phones and stuff.

If you are interested in more details about SDL or just general game programming, feel free to contact me. I’m usually sitting around the ELW 206 (aka the ESS office), but we can also meet up at 7pm each Thursday in the ELW B220 (also known as the Windows lab) during the Uvic GameDev club’s meetings.

There are actually many game dev studios in Victoria, and also in Vancouver. Doing a game development co-op or becoming a full time game developer after your studies is not a pipe dream as long as you gather as much experience developing games as possible (ideally using some tools that teach you skills that are actually worth paying you to use, such as not game maker) Do not rely on your classes to teach you the required skills, as they will not make you stand out to employers.

Again, I love talking about game dev, so come see me if you’re interested!

Good luck and have fun!

~Nicolas
What’s the deal with smart meters?

As someone who lives a block from Fernwood Ave, I hear a lot about smart meters and how they’re basically the end of the world. What is a smart meter? It’s a power meter, much like the one you have on the side of your house already. The difference is that instead of only measuring how much power you use, it also detects when you use the power (on an hourly basis). Eventually, BC Hydro will start charging differently for power at different hours - power during peak hours will cost more, whereas power in the middle of the night will be cheap. A smart meter also wirelessly sends power usage information to BC Hydro instead of sending a technician to your house to read the meter.

There are many bad arguments against smart meters. Some people say they’re an excuse for BC Hydro to charge more for power (if that’s the case, why are they spending so much to install them? Why not just increase your rates instead?) Others say the idea of charging more at certain hours makes no sense because power always costs the same to produce (so that means BC Hydro is capable of creating an infinite amount of power during peak hours?) Some even say that smart meters allow BC Hydro to see what electronics you have in your home (if you can figure out a way of identifying specific electronics based on hourly power consumption, then what are you doing protesting smart meters when you could get a job at CSIS?)

However, the main stupid argument against smart meters is that they are somehow dangerous. The reasoning behind this is that they communicate wirelessly with BC Hydro, and in order to do this, they give off radiation.

What’s wrong with this? For starters, “radiation” refers to any type of wave that travels through the air. Light is radiation. Heat is radiation. Sound is radiation. Smells could even be considered radiation. The kind of radiation associated with radioactive decay is known as ionizing radiation, which has nothing to do with smart meters. So the argument “smart meters are dangerous because of radiation” by itself makes no sense.
Smart meters continued

That said, smart meters give off electromagnetic (EM) radiation in order to communicate with BC Hydro. This works the same way as a cell phone or wifi (this is also how radio works, yet somehow you don’t see anyone picketing radio stations over this). So is electromagnetic radiation dangerous? Probably not. There has never been anything but weak anecdotal evidence indicating it could be.

However, for the sake of argument, let’s assume that the small amount of anecdotal evidence is correct and this type of radiation is indeed dangerous. If this is the case, then we have a lot more to worry about than just smart meters; cell phones and wifi both give off several orders of magnitude more radiation, because a smart meter transmits for an average of approximately 1 minute per day. According to BC Hydro’s calculations, the worst-case amount of radiation from a smart meter over 1 year is equivalent to 4 minutes of wifi.

Not only that, but EM radiation decreases exponentially with distance. If having a smart meter 10 feet from where you sleep is dangerous, then think about how much more dangerous it is to put a cell phone an inch or two from your brain (perhaps 3 for many swollen-headed and thick-skulled smart meter protestors). In fact, 20 years of smart meter exposure is equivalent to a single 30-second phone call.

Regardless of all this, I know of a couple who has a “no smart meter here” sign on their power meter, despite both having cell phones, and wifi. Misinformation is a powerful thing.

Anyway, if you excuse me, I will be out picketing my local radio station.

~Joel

References:

More quotes...

“How do they determine these #’s in real life?” - Student
“That’s magic” - Dr. Dechev, Mech 350

“I feel like I should start buying women’s clothing. It fits so much better than men’s’.” - Jake

“I think I’m actually getting smarter” - Nigel

“That’s what’s good about engineering - if you’re right, you’re right. It’s not like arts. ‘I don’t like your picture.’ ‘But I like my picture!’” - Dr. Zielinski, Elec 330
Public Awareness

People are generally unaware of things. They don’t realize that they have the power to solve almost all of their problems. They don’t realize that they can easily access information on any topic but instead blame others for not informing them. They play the victim instead of actively seeking the information.

Politics are excellent example. Take the UVSS election. There was a letter to the Martlet complaining about the board of directors election being only one day instead of the usual three. The writer said he/she was not properly informed. The time frame of the election was explicitly advertised all over the UVSS website and posters, it seems the writer did not take the time to research the election.

Now, I realize it is not possible to be aware of everything and know everything. But if you have an issue with something, please read about it first. Ignorance will make you look like an idiot. Joel’s article on smart meters is an excellent example. Or there’s the classroom wifi debate. People with no medical knowledge or radio frequency knowledge are trying to control how electromagnetic waves are used. They form committees to investigate the effects. Committees with little or no professional representation. That’s like building a bridge or doing open heart surgery by committee. “By a 9-8 vote we have decided to cut open the right atria first” That’s just ridiculous.

I find it frustrating when people have the ability and power to fix their problem, but instead just sit there and complain. Also, apathy really pisses me off. A lot of people really don’t care about anything.

Enough ranting. I need sleep.

~D Fresh

Thanks so much Doug for putting so much time and effort into the Fishwrap. It was a pleasure to work with you and I am looking forward to writing more issues with you in 3B.

~ebes

(for your enjoyment, a little slice of 90s animated bliss...)

Disclaimer: The views expressed in this paper are by no means the views of the UVic ESS or any member of the UVic Engineering department, and therefore should be taken solely as opinion rather than policy. ERTW!
Need more distractions from studying? Read on...

Instead of studying, I’ve made a list of thought provoking facts. Enjoy!

Every moment billions upon billions of neutrinos are streaming through you, and they almost never interact with you.

Every simple, everyday objects such as toasters are so complex that it is highly unlikely that one single person knows how to make one from scratch properly.

Given enough time and large enough quantities, hydrogen turns into people.

Cleopatra lived closer in time to the Moon landing than she did to the creation of the pyramids.

There are around 100 billion galaxies in the Universe and each galaxy has around 100 billion stars in it. To understand how many stars that is, think about this... For every grain of sand in all of the deserts, beaches and oceans on Earth, there are about 10 stars out there in space.

Animals are the machines that genes use to reproduce more copies of themselves.

Our consciousness has somehow arisen from inanimate (but highly ordered) unconscious matter.

At no point during the nursery rhyme does it ever specify that humpty dumpty is an egg.

If a woman has only male children, she is the first in an unbroken line of women going back to origin of humans to not have a daughter. The reverse is true with fathers having only daughters.

Word is the word for word.

Carrots were originally purple.

They never actually call the creatures in Return of the Jedi Ewoks, they are only labeled as such in the credits.
Near the end of each season, every player who played at least 12 games (sorry Radulov) is required to take the anonymous players survey created by the commissioner himself, in order to help the league better run it’s operations. The results are not to be released until the end of the regular season and not even the commissioner has looked at the results of his survey yet, but one of my agents managed to sneak a copy out the head office in New York which he remarked was rather easy seeing as they only left the Leafs defending it.

The first section in the survey is regarding the new director of player safety, Brendan Shanahan, and his new system for handing out suspensions where he posts a video explaining the suspension. It was almost unanimous among the players that his videos were too long and more than half of the players supported the idea of creating an additional “50 words or less” version. There were no comments from any of the players in this section as in large print below the box read “Each comment will be reviewed and a video will be created explaining it. All players will be required to watch all comment videos”.

The next sections contained team specific questions that all players had to answer. While many of the results were as we expected, such as an almost unanimous yes to both would you date Henrik Lundqvist and is Cory Schneider the best goalie on the Canucks there were also some more surprising results. Even though they’ve clinched a playoff spot, almost a third of the league still doesn’t believe Florida is in the playoffs.

With the increase in social media among the players there were questions regarding various tweets players had made, but what should be noted was an overwhelming majority of players said that they wanted Paul Bissonette, aka BizNasty2point0, to tweet even more. There was a suggestions box at the end of the second to last section, and while most were crude remarks that will not appear in the public version, a few players suggested renaming the Norris Trophy to the Art Ross for Defenseman Trophy.

Gary Bettman is the topic of the final section, containing only one question: “Do you support Gary Bettman to continue as commissioner of the National Hockey League?”. The question is not so strange, but the results are as every single player voted yes. The fact that no other option was displayed led me to try and get in contact with the commissioner about it, where he assured me that there were “multiple options they could choose from for every question” and would not comment further on the issue. One can only presume that all of the NHL players truly do love what he brings to every Stanley Cup award ceremony.

~Ryan Petty
**Engr Scopes**

_Aquarius* (Jan 20 - Feb 18)
Me so sleepy

_Pisces* (Feb 19 - Mar 20)
I know what will wake me up

_Aries* (Mar 21 - Apr 19)
Some of your Dad’s BBQ Brisket

_Taurus* (Apr 20 - May 20)
Who am I kidding, I have no motivation

_Gemini* (May 21 - Jun 20)
Too much Reddit and Imgur

_Cancer* (Jun 21 - Jul 22)
Not enough air in lungs

_Leo* (Jul 23 - Aug 22)
I wonder what Dougie Fresh is up to

_Virgo* (Aug 23 - Sep 22)
He’s probably enjoying some BBQ Brisket

_Virgo* (Aug 23 - Sep 22)
He’s probably enjoying some BBQ Brisket

_Libra* (Sep 23 - Oct 22)
Oh well, at least I have gravity

_Scorpio* (Oct 23 - Nov 21)
Remember Scorponok from Beasties, he was pretty badass

_Sagittarius* (Nov 22 - Dec 21)
Jeff is a good looking man

_Capricorn* (Dec 22 - Jan 19)
I typed that with one hand

**Nigel’s List of Sexy Words**

1. subcutaneous, aww yeah

Drawings courtesy of P. Gordon
Sudoku
Same rules as normal sudoku. All numbers 1-9 in each row, column and box. Except, now the numbers inside each dotted box must also add up to the little number in the corner. ACH, HANS, RUN!!!!

Formal Fridays
Don’t forget to dress up this Friday. Oh wait, Friday is a holiday. But you should still dress up. Because it’s awesome.

From the Editors
Ebes: CROSSING THE BUSH!!!

So we’ve made it. The last issue of the term and we’re both still sane...It’s been pretty fun. We hoped you enjoyed it, if you didn’t, well, we never received any complaints. Enjoy exams. See you next term.

~D Fresh

P.S. After staring at that penny article, pennies started to look like penises.

Thank-you to all of the contributors:
Poetic engineer  Nicolas Bolas
Ryan Petty  Joel Geddert

Please send in articles, comments, anything. We don’t get any email, we’re lonely. fishwrap@engr.uvic.ca.