

MUUGLines

The Manitoba UNIX User Group Newsletter

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Editor: Adam Thompson

Next Meeting: February 9th, 2016, 7:30pm

Main Topic

Wyatt Zacharias will be doing a presentation on wireless theory and regulations, and how they pertain to the average user. Wyatt will be breaking down the basic units and calculations related to wireless networks and how they can be used by an unlicensed user.

RTFM

In the RTFM segment this month, Adam Thompson will discuss the use of (and possibly demonstrate) lvm(8) snapshots, particularly their use for quick rollback.

Door Prizes

On top of whatever else is on offer this month, we'll have a copy of the O'Reilly book "Mind Hacks" as a door prize. Trevor highly recommends the book, come out and have a look at it and maybe get your own copy for free!

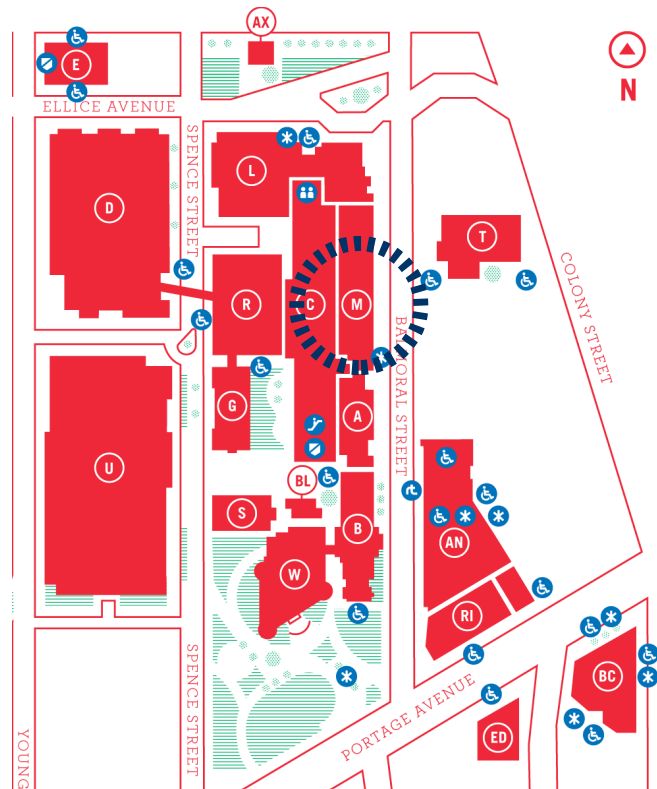
MUUG Mugs!

Back by popular demand! MUUG now has new coffee mugs, cobalt blue and deep laser-etched with our age old, lovable logo for sale for \$15 cash. They are quality mugs, made in the USA, and have a fairly large volume capacity. Want a mug but can't make meetings? Ask on the mailing list and most likely a board member can deliver one within Winnipeg.

Opinion Survey

The board will soon be distributing a survey to all members soliciting their opinions about various MUUG-related issues. We need your input!

Where to Find the Meeting



Meetings are held in the University of Winnipeg's Manitoba Hall (marked "M" on the map), off Spence Street between Portage Avenue and and Ellice Avenue. We can be found in room 3M60, but occasionally get relocated to nearby rooms. If there is a change, it should be conveyed via signs throughout Lockhart Hall and Manitoba Hall. Parking is available on the surrounding streets. Please see <http://www.uwinnipeg.ca/maps> for further information about parking and access to the campus.

No computer has ever been designed that is ever aware of what it's doing; but most of the time, we aren't either.

—Marvin Minsky

R.I.P. Marvin Minsky

by Adam Thompson, with some content from MIT News, January 25, 2016



Marvin Minsky, a mathematician, computer scientist, and pioneer in the field of artificial intelligence, died at Boston's Brigham and Women's Hospital on Sunday, Jan. 24, of a cerebral hemorrhage. He was 88.

UNIX was inspired in large part by MULTICS, which was in turn a replacement for CTSS, which came into existence at least partly because of MAC, the original time-sharing system running in Minsky's Artificial Intelligence Lab at MIT. While calling Minsky a direct progenitor of UNIX would be a stretch, he influenced countless aspects of the systems we use today. (For example, EMACS likely wouldn't exist without his indirect support.)

As UNIX heads to the wrong side of 45 years old, we're losing more and more of the seminal figures responsible for its coming into existence. They built something great – let us not forget the lessons they learned the hard way.

CompSci for Laymen

by Trevor Cordes

Want help in understanding CompSci concepts, or explaining them to other people? How about “big O notation” explained in terms of Harry Potter movies? That Java is to JavaScript what Car is to Carpet?...

<http://carlcheo.com/compsci>

Rant of the Month

by Trevor Cordes

While a tiny bit old, here's my favourite rant against systemd, from the LKML no less. Every Linux power user should read this, and ruminate. Here are some choice quotes:

“So, what is systemd? Well, meet your new God... [Linux] won [the OS war] without the various ‘CrapKit’ [excrement] that's begun to insinuate itself into the heart of my system of late... Traditional ideas about simplicity and freedom are quaint, but have no real place in a ‘modern’ OS. Look, [Poettering's] just smarter than you, so get over it and move aside. He knows what's best, and he has it under control. How old is this guy anyway? 12 or so?... Those who think Linux should cater to idiots and droolers should go back to their Macs and Windoze boxen, and stop trying to ‘fix’ Linux. Systemd is a coup. It is a subversive interloper designed to destroy Linux as we know it, foisted upon us by the snarky we-know-better-than-you CamelCase crowd. They just don't get it down deep where it matters.”

WARNING: vulgar language at the following link.

<https://lkml.org/lkml/2014/8/12/459>

New machine learning algorithm writes political speeches

by Wyatt Zacharias

Valentin Kassarnig of the University of Massachusetts Amherst has published a report on the creation of a machine learning algorithm designed to create political speeches. The speeches produced by the algorithm are grammatically correct, and can be created with either a supportive or opposing opinion. Kassarnig's first attempt used a database of over 4000 political speech nuggets obtained from 53 Congressional floor debates. The nuggets were then separated by sentence, and categorized by their political party and whether they were supportive or opposing. Kassarnig then moved to a new method based on the n-grams approach, which analyzes sequences of words or phrases.

Included in the algorithm is the use of two other underlying models, one handling grammatical correctness, and the other handling textual consistency. The end result is the production of speeches that sound believably human. Kassarnig has also said that he is not limiting the algorithm's usefulness to politics, suggesting that it could serve other textual uses including news articles and blog posts.

<http://www.techtimes.com/articles/127526/20160126/ai-politics-how-an-artificial-intelligence-algorithm-can-write-political-speeches.htm>

Software with the most vulnerabilities in 2015 from the National Vulnerability Database

by Wyatt Zacharias

CVEDetails.com, a website that provides an interface for CVE vulnerability data has released a list of software sorted by the highest number of vulnerabilities, calculated from the National Vulnerability Database. At the top of the list is Mac OS X and Apple iOS with 384 and 375 vulnerabilities respectively. Next on the list is Adobe Flash Player with 314 vulnerabilities, followed by three of the Adobe Air products all having 246 vulnerabilities. All three major browsers are next, but Internet Explorer takes the cake with 231 vulnerabilities, versus Google Chrome's 187, and Firefox's 178. Ubuntu is the highest Linux distribution on the list at number 11 with 152 vulnerabilities. OpenSUSE and Debian are the next Linux distributions on the list at numbers 23 and 24, with 121 and 111 vulnerabilities respectively. The kernel itself comes in at number 31 with 77 vulnerabilities. Totalled per company, Microsoft is the winner with 1561 vulnerabilities. Adobe is a close second with 1504, and Apple is third with 1147 total vulnerabilities across all products.

<http://www.cvedetails.com/top-50-products.php>

Netflix cracking down on proxy and VPN users

by Wyatt Zacharias

Netflix has recently announced that they will begin targeted blocking of users attempting to ac-

cess the service through VPN or proxy services in order to access content not normally available in the subscribers region. Netflix's catalogue availability to a subscriber is based on their apparent physical location (based on IP geolocation) not on their billing location, which allows users to access content not normally available to them by masking their IP through the use of a VPN or proxy. These region restrictions are a result of the content owners having complicated distribution agreements in different countries. Netflix has publicly said in the past that it is not interested in trying to stop it's paying customers from using VPN and proxy servers, which suggests that Netflix is facing increased pressure from the content owners to crack down or risk losing content deals all together.

Anecdotal evidence from social media and other sources shows certain region by-passing services such as TorGuard and UnblockUs are already experiencing intermittent issues, with access dropping off and later being available again. With services like UnblockUs basing their entire business on by-passing region locks it's unknown whether Netflix will be able to make any significant impact on users by-passing region locks, or if it will devolve into an endless game of cat and mouse, where one service is blocked two more appear.

<https://torrentfreak.com/netflix-cracks-down-on-vpn-and-proxy-pirates-150103/>

Kickstarter for "Server Tycoon" started

by Wyatt Zacharias

Gamify Labs, a group of UNIX and Windows administrators have started a Kickstarter campaign for a game called Server Tycoon. The game features a strategic management play style, where players offer internet services to their virtual customers. The simulated companies can be listed on the stock exchange, buy shares of allies and competitors to share profit and will also be faced with cyber attacks, pirates and other harsh competition. The goal of the game is to build your company the biggest and best by upgrading servers, training staff, and attacking competitors on business and cyber fronts. The game cur-

rently has just under £15,000 out of its £100,000 funding goal with the deadline 41 days away.

<http://www.servertycoon.com>

<https://www.kickstarter.com/projects/1567327150/server-tycoon>

Microsoft will not continue to support new processors in Windows 7 beyond July 2017.

by Wyatt Zacharias

Microsoft has announced that as of July 2017 no support for new processors will be added to Windows 7. The only way to run Windows on processors released after that date will be to upgrade to Windows 10. This new policy is not just limited to Intel, or even x86 processors. Qualcomm's Snapdragon 820, and AMD's Cazzario line will be the first processors to be supported only in Windows 10. Although Microsoft's motivation behind the move likely has to do with the amount of time it took for migration from older platforms such as XP and Vista to 7, 18 months is not that long in the enterprise world when companies may have thousands of computers that would require Windows 10 migration before their hardware can be upgraded.

<http://www.anandtech.com/show/9964/microsoft-to-only-support-new-processors-on-windows-10>

Intel CPU Cheatsheet

by Trevor Cordes

As if choosing a CPU wasn't hard enough, Intel as of late has been adding "lettered" sub-models to its i5/i7 lines. Infuriatingly, some of these sub-models seem pointless. Here's the cheatsheet for current "6th gen" desktop CPUs:

K – unlocKed clock/multiplier for overclockers, useless for everyone else, pricier, lacks trusted execution technology for some unknown reason.

X – the highest-end "eXtreme" CPU of the given generation, useful only if you like spending 3X the money for 25% more performance.

S – for Slower: reduced base and turbo frequency for a slightly lower price and a supposedly lower TDP, but many independent reviews state that the power savings may largely be a chimera.

T – for slowesT (I'm making these up as I go along), same as "S" sub-model but even more so.

P – "Pro" version with no on-die video, useful in conjunction with P series motherboards that don't give you the video ports, for when you know you're going to use a discrete video card. Strangely, the P version is sometimes more expensive even though you get "less stuff", just like the P motherboards.

Bottom line: almost everyone will do best sticking with the unlettered "stock" CPU model.

Microsoft has released their deep learning toolkit on GitHub

by Wyatt Zacharias

Microsoft has released its CNTK (Computational Network ToolKit) which it uses for speech processing in Cortana, the virtual assistant A.I. featured in Windows 10 on GitHub under Microsoft's own open source license. Microsoft's CNTK was developed out of a necessity to be able to improve the speed at which speech could be processed and analyzed. CNTK was designed specifically to run on the Azure GPU Lab system and as such CNTK contains the only parallel GPU capability. Microsoft is not the first one to open source a deep learning network; in November 2015 Google released its TensorFlow machine learning system, used in Google's image search feature, but Microsoft claims their system is "just insanely more efficient than anything we have ever seen."

<http://blogs.microsoft.com/next/2016/01/25/microsoft-releases-cntk-its-open-source-deep-learning-toolkit-on-github/>

Book & User Group Discounts

O'Reilly, No Starch Press and Les.Net continue to offer discounts to MUUG members. Remember to take advantage when you're buying anything from them!