

Aug 13 , 2014, 7:00 pm

# Allen Ream

No-Host Dinner in Bistro begins at 5:45

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### August Musings from Your President by Brad Youngman

This has been an interesting month here at the House of Youngman.

#### MANAGING DISK SPACE

When I set up my Windows 8.1 machine last January, I didn't pay too much attention to new settings. I installed the operating system on a nice new 500 gig drive and provided a 500 gig backup drive. I thought that would suffice as I have 177 gigs of stuff on the C:\ drive. An image made with **Macrium Reflect** plus daily incrementals should be OK with the provided backup space. But that was not the case. The backup drive was filled up in about a month. No problem, I thought, I would just get a 2 TB drive for backup which would be good enough for 4 months or so.

In the meantime, John Buck pointed me to a drive analysis program called **SpaceMonger** [<http://preview.tinyurl.com/3o3nf>], which showed in block format [-tree map, <http://preview.tinyurl.com/lzddco5>] how a drive is being used. SpaceMonger showed me that "File History" was very large. File history, a Windows utility, was set to do incremental backups of data every 15 minutes, and that included the daily Macrium Reflect daily backup (and vice-versa). I solved the prob-

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### SPAUG Meetings

#### General Meeting

Open to the Public  
Second Wednesday of the month  
Palo Alto Elks Lodge

#### Next Meeting:

August 13, 2014, 7:00 pm

*Note the new earlier  
starting time*

**Presenter:** Allen Ream

**Topic:** Computers—From Medical  
History to Family History

Come early to our pre-meeting  
no-host dinner in the Elks Lodge  
Bistro, beginning at 5:45 pm

#### Board and Planning Meeting

Open to all SPAUG members only

#### Next Meeting:

Wed August 20, 7:15 pm,

*NOTE: This is a week earlier  
than usual*

Barron Square Community Room,  
Palo Alto

◀ (Continued from page 1)

lem by turning off and erasing File History, since the daily Reflect backups were good enough for me. So when you set up a new operating system, pay attention to default settings. Another thing that I would not ordinarily back up are VirtualBox files, but Reflect doesn't allow exceptions. Too bad. But at least, the backup beast has been mostly tamed.

### INSTALLING A NEW DRIVE

Installing the new 2 TB drive was an interesting experience. Normally I would insert a drive into the open socket in the front of my machine, format the drive, give it a name and tell Reflect to use it for backups.

My new machine with UEFI [Unified Extensible Firmware Interface—<http://preview.tinyurl.com/qdz4gzb>] was not so simple. Upon insertion of the new unformatted

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### Our Migrating Board/Planning Meeting

Because of scheduling and site availability, our August, September, and October Board/Planning meetings are migrating. Here's the planned path—

- Wed, August 20, 7 pm, Barron Square Community Room, Palo Alto  
[meeting is a week earlier than usual, at our usual location]
- Wed September 24, Brad Youngman's home, Sunnyvale  
[meeting is on our usual 4th Wednesday, different location]
- Wed October 22, Christie Bilikam's home, Palo Alto  
[meeting is on our usual 4th Wednesday, different location]

*Print Screen* is published by SPAUG, the Stanford Palo Alto Users Group for PC.

**Dues** are \$30 for twelve months.

**Monthly meetings** are held at 7:15 pm on the second Wednesday, at the Palo Alto Elks Lodge.

**Website:** [pa-spaug.org](http://pa-spaug.org)

**Mail:** PO Box 20161, STANFORD CA  
94309-0161

Spaug is a 501(c)(3) organization

### Door Prize Tickets

**Free**

You get one ticket for free when you sign in at a general meeting.

**Buy a Ticket**

\$1 each

**Buy More Tickets**

Quantity discount: Six tickets for \$5

**Must be present to win**

## Meeting Day: Wednesday, August 13

### General Meeting

**Palo Alto Elks Lodge,  
4249 El Camino Real, Palo Alto**

**Meeting time is 7:00 pm**

### Allen Ream

Speaking about  
**Computers—From Medical  
History to Family History**

The Elks Lodge is a light-colored two-story building on the North (bay) side of El Camino Real (ECR), just east (toward Los Altos) from the Charleston-Arastradero-ECR intersection. It's diagonally across ECR from the Crowne Plaza Ca-baña hotel. Map—<http://preview.tinyurl.com/lzzrq8m>

Park in the lot that wraps around the lodge, and proceed to the front door (on the West side of the bldg.). This is a key-carded door. If you cannot get in the front door because you are late, press the intercom button on the post to the left of the main entrance, identify why you're there (try "computer club"), and you should hear the door unlock. Pull the handle and enter

Proceed to the Lodge Room—upstairs. An elevator is available behind the stairway.

**Note that the Start-  
ing Time has been  
moved to 7 pm**

### Typical Meeting Agenda

- 7:00 "Boot up", Crosstalk, Announcements
- 7:30 Coffee/Social Break
- 7:50 Return to seats
- 8:00 Presenter introduction and program
- 9:00 Raffle and Adjournment

### Optional pre-meeting dinner

Join us for dinner before our General Meeting at —

### *The Bistro—at the Elks Lodge*

There's no dining place closer to our meeting place than this. It's on the ground floor toward the back of the building,

**Directions:** It's on the ground floor toward the back of the lodge building.

**Menu:** <http://www.paloaltoelks.org/bistro-restaurant/>

**Review:** <http://www.yelp.com/biz/palo-alto-elks-lodge-no-1471-palo-alto>

Note the **Time** for  
this month's  
dinner.

**Dinner time is 5:45 pm**

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drive, my machine informed me that the drive needed to be “initialized.” So I let it happen, after which my machine would not boot, nor would it let me into bios (pardon me – UEFI) by normal means.

After a bit of head scratching I thought I would try ESC, DELETE, F2, F8, F10 and F12, each requiring a reboot. One of them brought up an option to get into UEFI. After that, all was easy. Under one of the buttons on the UEFI screen is one for optimizing UEFI for all attached hardware. This one I know and use each time I change the operating system by inserting an alternate drive into the C:\ slot in the front of the machine. Now the drive could be formatted, named and identified to Reflect. This took somewhat more time to puzzle through than to describe here.

### WINDOWS 8.1 DOESN'T RECOGNIZE “OLD” USB HARD DRIVES

Another thing that I notice with the Windows 8.1 installation is that it really doesn't like “old” usb hard drives. It will not recognize them at all, and I haven't taken the time to see if there is a workaround. It does recognize usb2 and usb3 thumbdrives. Anyone have any ideas why this disparity exists? Microsoft probably thinks that this is a safety feature. Strange.

### ANOTHER MACHINE GETS LINUX MINT

My favorite Santa Clara structural engineering firm has given me some more retired CAD machines. One of them has a 4-core Core2 Duo Extreme X9770 processor running at 3.2 MHz and a 100-gig solid state drive. This machine has been given over to Linux Mint 17 and it really moves along. It is a bit noisy compared to the machine that I built last year, but it was free! I think that it is a great deal more responsive than the Windows machine and most of that is probably due to the solid state drive. The video card is a monstrous big Asus EN9800GX2. You want prices? The CPU cost about \$1400 and the video card \$600 when new 5 or 6 years ago.

When I set up Linux Mint 17 I tried to replace Firefox with **Chromium** (the father of Chrome) and was unable to do so. Firefox seems to be tightly integrated with Linux Mint. I found various places where I could change calls from Firefox to Chromium, but clicking on URLs in email or web pages failed to pull up Chrome, or do anything at all. So I reinstalled and left Firefox settings alone. I use Chromium when I have a choice, but clicking on URLs always pull up Firefox. A nuisance.

### MICROSOFT ONENOTE

The piece of software that I like today is Microsoft's OneNote. This runs on both my Windows and Linux machines. I make notes to myself during the month of a variety of topics, each to a “page.” This little note flowed from one called “Musings August.” And OneNote has the ribbon on top from Office that we all have come to love (Hah!) At least it can be shrunk to just tabs.

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## KEYBOARDS

I have a couple of new keyboards, one from Corsair and one from Dell. The **Corsair Raptor K30** has nice long clickety strokes which helps my typing accuracy. I originally went to find a spring and switch keyboard like we all used to have before the diaphragm devices were invented. The old style ones are still manufactured but they are more than \$100, something that I am unwilling to pay. About \$60 got me a long stroke diaphragm keyboard with programmable keys and led lights. Nice.

A couple of weeks ago I found an article about “**The 10 Best Keyboards**” and one of them was a **Dell SK-8115** that I last used at SLAC before I retired. It, too, has a nice long stroke and can be had for \$17, shipping free. I installed it on the Linux machine. It is just as good as I remembered, and except for lighting, is as nice as the Corsair. I recommend them both.

As Bugs Bunny used to say “*That’s all Folks.*” Come to the next meeting [Wed, August 13] and bring a neighbor. And please pay your dues if you’ve been notified. It is your dues that keep this organization going.

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## July 23, 2014 Board/Planning Meeting Notes

by **Christie Bilikam**, (*edited for use here*)

**Present:** Brad Youngman, John Buck, John Sleeman, Robert Mitchell, Maurice Green, and Christie Bilikam. Jim Dinky provided a delicious Chinese dinner.

**Membership Report -- Christie Bilikam** — Maury and Christie will work with the PayPal system as several members indicated they would like to pay their dues via. PayPal.

**Programs -- Christie Bilikam & Maury Green** — Dr. Allen Ream, MD, will speak about “Computers; your medical history to your family history.” [August 13]

### **How to set up a speaker:**

Contact your friend. Tell him/her about SPAUG. Ask if he/she would be willing to speak to the club. If they say yes – give name, email, and phone to Christie and Maury. Tell him/her to expect an email and phone call from Christie or Maury.

**Video recording and sales -- Robert Mitchell** - 2 video copies will be produced for each meeting unless otherwise requested by members.

**Equipment -- Carl Moyer** and Maury Green each keep a projector and bring them to the meetings. The Lodge supplies the sound system.

**Publicity** – Sign for SPAUG meeting is ready. Tripod will be set up by a member arriving early the night of the meeting.

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**Webmaster -- John Sleeman and Maury Green** – Maury reviewed the new SPAUG website.

### NEW BUSINESS

SPAUG board meeting and planning meeting dates and locations for the next three months:

- **August 20<sup>th</sup>** [NOTE: This is third Wednesday, not fourth] at Maury Green's condo clubhouse 7–9 pm
- **September 24<sup>th</sup>** at Brad Youngman's home, 7–9 pm
- **October 22<sup>nd</sup>** at Christie Bilikam's home, 7–9 pm

### OLD BUSINESS CARRIED FORWARD

- **Better Part TV program:** Dody Lee [and John Buck] is waiting for feedback from the video producers.
- **Program speakers for the next few months:**
  - August 13 – Allen Ream
  - September 10 – TBD
  - October 8 – [presentation TBD], Nominations for election
  - November 12 – Panel of Experts, Election
  - December – holiday party – TBD

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## Filler

by John Buck

### 50 OPEN SOURCE REPLACEMENTS FOR WINDOWS XP

“Before we get to the list itself, here's a quick background for Windows XP users who aren't familiar with Linux or open source software. Linux is an operating system that anyone can use free of charge. In addition, anyone can see the source code for Linux and modify it however they like. Because anyone can tweak it, it comes in thousands of different versions, which are known as "distributions." Different Linux distributions use different interfaces or "desktops," which determine how the operating system looks on the screen. Unlike Windows, Linux distributions generally come with lots of free applications already built in, so users don't have to pay extra for office productivity software, security software, games or other applications.

dows XP”

—[www.datamation.com](http://www.datamation.com)

—<http://preview.tinyurl.com/k5eqvx2>

—gsearch—<http://preview.tinyurl.com/n8sgyff>

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### **HOW TO REPLACE WINDOWS XP WITH LINUX FOR FREE.MHT**

“ . . . we will demonstrate how to dual-boot an existing Windows XP installation with the latest edition of Linux Mint, a highly popular Linux distribution, while retaining all the important user data you have. Naturally, this is somewhat of an advanced topic, so you might need to invest a little time reading, but overall, the exercise should be worth the effort. In the end, you will have a fully functional dual-boot setup for all your needs, with XP on one end and a modern, stylish Linux Mint 17 Qiana on the other.”

—<http://www.techsupportalert.com/content/how-replace-windows-xp-linux-free.htm>

—gsearch—<http://preview.tinyurl.com/ldw99mw>

### **MY [MARTIN BRINKMANN’S] SLOW WITHDRAWAL FROM ALL THINGS GOOGLE**

“There needs to be a counterweight to Google, or many weights, and I cannot really see any company filling that role right now. While I can do little to change that, I can at least stop using Google services and let others know about alternatives that are available.”

—<http://www.ghacks.net/2014/07/02/slow-withdrawal-things-google/>

—gsearch [alternatives to google products and applications]

—<http://preview.tinyurl.com/lka3qrv>

### **HOW TO DEAL WITH POTENTIALLY UNWANTED PROGRAMS (PUP)**

“When your security program detects a PUP, you can have it quarantine it immediately. While that is usually the best course of action, it can happen that you may want to keep the program because you may find it useful, or may want to know more about it before you make a decision. The best option to deal with it is to search on the Internet to find out more about it before you proceed with the installation. If it is already installed, you may be able to use the information provided by your security software to do the same thing.

—<http://www.ghacks.net/2014/07/30/deal-potentially-unwanted-programs-pup/>

### **WHY THE SECURITY OF USB IS FUNDAMENTALLY BROKEN**

“The element of Nohl and Lell’s research that elevates it above the average theoretical threat is the notion that the infection can travel both from computer to USB and vice versa. Any time a USB stick is plugged into a computer, its firmware could be reprogrammed by malware on that PC, with no easy way for the USB device’s owner to detect it. And likewise, any USB device could silently infect a user’s computer. “It goes both ways,” Nohl says. “Nobody can trust anybody.””

—<http://www.wired.com/2014/07/usb-security/>

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### **There’s More**

In order to save on our printing and postage expenses, your Editor is limiting the size of the printed newsletter to four sheets (eight pages). However, there’s often more material than the space in these eight pages can hold, so your Editor provides an online version that has more than this printed version.

SPAUG CALENDAR

Always subject to change; verify event with host, or a Board or Planning Committee member.

Sun	Mon	Tue	Wed	Thu	Fri	Sat	
	<p><b>Note:</b> All the SIGs are on a Summer Vacation</p>		30			2—Clinic, by appointment only	
			6			9—Clinic, by appointment only	
			13	<p>5:45 pm Dinner (Optional), Elks Lodge—Bistro</p> <p>7:00 pm General Meeting Elks Lodge, 4249 El Camino, PA</p> <p>Speaker: Allen Ream</p>			16—Clinic, by appointment only
			20	<p>7:15 pm Board and Planning Mtg Barron Square Community Room</p>			23—Clinic, by appointment only
			27				30—Clinic, by appointment only

**Saturday Clinic**

Clinics usually are held when needed. **Call Jim Dinkey** to make a reservation. The clinics are to help you unscrew your Windows XP and Windows 7.

Email: jimdinkey at jimdinkey.com or call 650-493-9307 for an appointment.

**Board and Planning Meeting**

**NOTE: Please contact Brad Youngman to confirm venue and time.**

Next mtg: Wednesday, August 20 (Note the date change), 7:15 pm,  
Barron Square Community Room

Board and Planning Meetings are open to all SPAUG members

**SIGS**

**NOTE: SPAUG-member participation in any of these SIGS requires membership in SVCS, currently \$12/yr. SVCS is not a part of SPAUG.**

**Note:**  
All the SIGs are on a Summer Vacation



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## Without-Whoms

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*SPAUG is an all-volunteer operation. Listed below is contact information for those who work to keep it happening.*

*Please help us.*

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**President:** *Brad Youngman*  
brad.youngman@gmail.com  
408-685-0826

**Treasurer:** *Robert Mitchell*  
rfmitch66@gmail.com  
650-867-2852

**Program co-Chairs:**

- *Maury Green*  
mauryg3@comcast.net  
650-493-5914
- *Christie Bilikam*  
christie.bilikam@gmail.com  
650-248-3026

**Membership:** *Christie Bilikam (see above)*

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**WebMasters:**

- *John Sleeman (see above)*
- *Maury Green (see above)*

**President Emeritus; Elks Liaison:**

*Jim Dinkey*  
jimdinkey@jimdinkey.com  
650-493-9307

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**Newsletter Editor:** *John Buck*

- jbuck1467@mindspring.com  
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- *John Sleeman (see above)*
- *Ron Nicholas*  
ron1nick@juno.com  
650-967-2104

**Recording Secretary:** *Stan Hutchings*  
stan.hutchings@gmail.com  
650-325-1359

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**Computer Clinic:** *Jim Dinkey (see above)*

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▶▶▶ **Positions Open:**

- Publicity

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## SPAUG Online

The SPAUG Web Page is at <http://www.pa-spaug.org>

hosted by [www.svpal.org/](http://www.svpal.org/)



Listserver

spaug-list at svpal.org

Any member on the spaug-list can send messages to all other members on the list automatically by sending e-mail to this address. This list is intended for announcements of interest to all SPAUG members. Please avoid excessive or trivial announcements, since some members have speed or cost to consider. Additions or corrections can be sent to:

**info@pa-spaug.org**

**Here's the Rest**

The stuff your Editor didn't find room for in the eight pages of the printed newsletter begins here. It ends wherever the Editor decides it ends, regardless of whether a page is filled.

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**BAT TO EXE CONVERTER**

Advanced BAT to EXE Converter enables you to convert your Windows batch files (.bat, .cmd) to standalone executables, complete with application icon, version information, embedded files and optional password protection.

—<http://www.snapfiles.com/get/advbatexe.html>

**DEEPER INTO THE WINDOWS REGISTRY**

"This article is work in progress so don't rely on it being completely correct. The format of some sections is likely to dramatically change to clarify and simplify the content. There will also be further work added to bring it up to Windows 8. I am publishing it now to give people the opportunity to ask questions and suggest improvements."

—gizmo

—<http://preview.tinyurl.com/pk828te>

**INTERNET'S ORGANIZING BODY: NOBODY ACTUALLY OWNS COUNTRY CODES, NOT EVEN COUNTRIES. OR US.**

"Some ccTLDs [Country code top-level-domains] have citizenship requirements for anyone trying to register a site under them, but there are plenty that permit worldwide commercial use. For example, the .ly in bit.ly is the ccTLD for Libya. The .tv TLD belongs to Tuvalu, which makes a fair bit of money leasing it out, and Google itself has registeredyoutu.be — using Belgium's .be — for video URL shortening."

"This particular question of ownership all began with a series of lawsuits. Several victims or families of victims of terrorism filed lawsuits against nations they claimed had sponsored the terroristic acts: Syria, North Korea, and Iran. The plaintiffs won their various suits against the three countries. Now, they're trying to collect on those judgements, and actually get some money in hand."

—consumerist.com

—<http://preview.tinyurl.com/n9h5vqr>

**NAKED SELFIES EXTRACTED FROM 'FACTORY RESET' PHONES**

"If you don't want your data recovered, destroy the phone—and that has been standard security advice, in relation to telephones and computer drives, for a number of years. Any other 'solution' simply postpones the point at which someone is able to access your confidential data."

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**Note:** Your editor found no examples of the photos mentioned in the item title.  
—<http://www.bbc.com/news/technology-28264446>

### WAVES HAVE BIRTHPLACES

When two different swells approach each other, instead of, "Uh oh, there's going to be a crash" ... "they simply pass through each other, like friendly ghosts, before continuing on their way without having experienced any lasting interference," writes Pretor-Pinney. "The sea surface can look confused as the two swells cross, but they emerge on the other side, unaffected by the encounter."—Robert Krulwich  
—<http://preview.tinyurl.com/kck2oj9>

### JUST LIKE FACEBOOK, TWITTER'S NEW IMPRESSION STATS SUGGEST FEW FOLLOWERS SEE WHAT'S TWEETED

"Twitter has new analytics available that let anyone understand exactly how viewed their tweets are. Those stats also clear something else up. Just like Facebook, what you share on Twitter isn't seen by all your followers.

Facebook has been under fire for over a year as brands have noticed that their posts have gotten less engagement than in the past. A common reaction is that Facebook's news feed shouldn't be artificially deciding what to show to a brand's followers. "Just show everything, like Twitter does it," is a general refrain."  
—<http://marketingland.com/facebook-twitter-impressions-90878>

### SECRET SERVICE WARNS AGAINST KEYLOGGING MALWARE AT HOTEL BUSINESS CENTERS

"The truth is, if a skilled attacker has physical access to a system, it's more or less game over for the security of that computer," writes Krebs, who recommends not using public computers for anything other than browsing the web."  
—consumerist.com  
—<http://preview.tinyurl.com/k84m2g2>

### "SEVERE" PASSWORD MANAGER ATTACKS STEAL DIGITAL KEYS AND DATA EN MASSE

"Millions of users trust these vulnerable password managers to securely store their secrets," the researchers wrote. Our study strikes a notion of caution: while in theory password managers provide a number of advantages, it appears that real-world password managers are often insecure."  
—ars technica  
—<http://preview.tinyurl.com/nlo5dh3>

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### **CONCRETE PAVING TECHNOLOGY**

“GOMACO Corporation manufactures curb and gutter machines, concrete slipform pavers, placer/spreaders, trimmer/placers, cylinder finishers, canal machinery and accessories ideal for any concrete construction project.”

—<http://www.gomaco.com/index.html>

### **A DEAD-SIMPLE TOOL THAT LETS ANYONE CREATE INTERACTIVE MAPS**

“The entire point of Tableau’s software update is to create a sophisticated cartography tool for anyone. Map-makers simply upload a .csv file of data into Tableau, and then get to select a template from Stamen’s canon of maps. This meant creating three map templates that are flexible enough to complement the color scheme and data density of an unknown user.”

—wired.com

—<http://preview.tinyurl.com/k9sn7sn>

### **GOOGLE'S CHROME WEB BROWSER IS KILLING YOUR LAPTOP BATTERY**

“There is a problem with Google Chrome on Microsoft Windows that is potentially very bad news for laptop users. It can drastically affect battery life, and even slow down your computer.

So, why is Chrome eating through your battery quicker than other internet browsers? The problem is down to something called the “system clock tick rate”. This is something that Windows uses internally that you won’t hear about unless you go looking. What Chrome does, as soon as it is opened, is set the rate to 1.000ms. The idle, under Windows, should be 15.625ms. The numbers are a bit confusing, but it’s what’s happening that matters here rather than the figures themselves.”

—forbes

—<http://preview.tinyurl.com/og7rd6d>

### **14 MOZILLA ARTICLES TO HELP MAKE YOU A BETTER AND SAFER USER OF THE FIREFOX BROWSER**

1. Copy your personal information from one browser to another
2. Profiles - Where Firefox stores your bookmarks, passwords and other user data
3. Back up and restore information in Firefox profiles
4. Use the Profile Manager to create and remove Firefox profiles
5. Security and passwords settings
6. Enable and disable cookies that websites use to track your preferences
7. Permissions Manager - Give certain websites the ability to store passwords, set cookies and more

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8. Block websites from storing site preferences or login status in Firefox
9. Remove recent browsing, search and download history
10. Troubleshoot and diagnose Firefox problems
11. Troubleshoot extensions, themes and hardware acceleration issues to solve common Firefox problems
12. Firefox is slow or stops working
13. Firefox hotkeys and keyboard shortcuts
14. Use mouse shortcuts to perform common tasks in Firefox  
—ghacks  
—<http://preview.tinyurl.com/p5zwwuws>

**NEW GOOGLE TRANSLATION TOOLS:  
EDIT TEXT, CHANGE LANGUAGE & HEAR TRANSLATION  
DIRECTLY WITHIN SEARCH**

Google has added new translation features, making it easy to edit translation search terms, change languages or hear the translations directly within search.

—[searchengineland.com](http://searchengineland.com)

—<http://preview.tinyurl.com/lac67lt>

**HERE'S HOW FULFILLMENT CENTERS MAKE SHIPPING STUPID  
BY MAKING IT SMART**

“For a box to roll on a conveyor, it has to be over at least 3 rollers at all times or it will get stuck. So if you take the spacing between two rollers and double it, you get something very important in warehouse language, minimum conveyable box size, usually 2” or 3” centers depending on the industry. If you’ve ever noticed that all of the tiny things shipped in boxes way too big seem to have boxes that are about 6” by 8” on the bottom, now you know why. If you sent that wrench from the article around the warehouse in a padded envelope or smaller box, it never would have made it.”

“Yes, the Stupid Shipping Gang is still stupid, but it does help us to understand why comical overpackaging happens.”

—[consumerist.com](http://consumerist.com)

—<http://preview.tinyurl.com/kjebbfq>

**WHY NEIL ARMSTRONG GOT TO BE THE FIRST TO STEP ON THE MOON  
[JULY 20, 1969]**

“In April [1969], only three months before liftoff, it was announced that Neil Armstrong would be the first man to walk on the moon. The main reason NASA gave for the decision was that the Eagle’s hatch opened to one side – rather than up or down – and that side

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was towards the pilot, Aldrin. The bottom line was that when the hatch was opened, the commander, Armstrong, had a clear path to exit, while the pilot was pinned in the rather cramped space of the module. By a sheer happenstance, it made more sense for Armstrong to exit first. Plus, as NASA's heads pointed out, Armstrong was actually the more senior member of the team anyway, having entered the program in 1962, while Aldrin came in 1963.

In later years, despite the official hatch story, some, including Kraft and fellow astronaut Al Bean of have come out and said that NASA wanted Armstrong to have this honor rather than Aldrin because they thought Neil's ego could handle it better than Aldrin's. So perhaps the hatch design simply gave them the excuse they needed."

—<http://www.todayifoundout.com/index.php/2014/07/neil-armstrong-got-first-step-moon/>

### **THE CASE FOR USING [HTTP://PREVIEW.TINYURL.COM/NQHD6Z3] PASSWORDS**

"So what's a security conscious person to do? Just use [<http://preview.tinyurl.com/nqhd6z3>] passwords. Not all the time, of course, but on the sites you truly don't care about. Microsoft argues that by just reusing the same, stupid "Sparky31589" at all your low-value sites—like ones where you don't store any important financial info—you're freeing up your mental RAM for memorizing four or five unique and secure passwords for your high-value accounts.

And this isn't just the conclusion of a bunch of logic and reasoning. These researchers used actual math, and models, and probability (that I can't even hope to understand or explain)."

—[gizmodo.com](http://gizmodo.com)

—<http://preview.tinyurl.com/pwbowa4>

Below is a different phrasing of the same idea.

### **MATHEMATICS MAKES STRONG CASE THAT "SNOOPY2" CAN BE JUST FINE AS A PASSWORD**

"Reusing weaker passwords in some cases can improve security, researchers say."

"The researchers propose managing passwords based on unique attributes of each account, rather than following a one-size-fits-all approach. Using an elaborate system of mathematical formulas, the researchers propose assigning each account with a value P based on the probability a given account password will be compromised and a value L assessing the loss that would be incurred in such a compromise. Those cases where P and L are sufficiently low aren't deserving of rules that take time and energy away from more productive security endeavors. In other words, for a significant percentage of accounts, "snoopy2" may be perfectly adequate."

—[arstechnica.com](http://arstechnica.com)

—<http://preview.tinyurl.com/p9ra5ux>

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### **HOW RUSSIAN HACKERS STOLE THE NASDAQ**

“For some U.S. officials, however, the lessons of the incident are far more chilling. The U.S. national security apparatus may be dominant in the physical world, but it’s far less prepared in the virtual one. The rules of cyberwarfare are still being written, and it may be that the deployment of attack code is an act of war as destructive as the disabling of any real infrastructure. And it’s an act of war that can be hard to trace: Almost four years after the initial Nasdaq intrusion, U.S. officials are still sorting out what happened. Although American military is an excellent deterrent, it doesn’t work if you don’t know whom to use it on.”

—businessweek.com

—<http://preview.tinyurl.com/lrjkon4>

### **INSIDE THE ARTIFICIAL BRAIN THAT’S REMAKING THE GOOGLE EMPIRE**

“Google is not really a search company. It’s a machine-learning company.”

“With deep learning, computer scientists build software models that simulate—to a certain extent—the learning model of the human brain. These models can then be trained on a mountain of new data, tweaked and eventually applied to brand new types of jobs. An image recognition model build for Google Image Search, for example, might also help out the Google Maps team. A text analysis model might help Google’s search engine, but it might be useful for Google+ too.”

—[http://www.wired.com/2014/07/google\\_brain](http://www.wired.com/2014/07/google_brain)

### **MR. SILENT: TURN ON SILENT MODE AUTOMATICALLY ON ANDROID**

“Mr. Silent is a new application for Android that you can use to create rules when you want your phone to be silenced by it.”

—<http://www.ghacks.net/2014/07/18/mr-silent-turn-silent-mode-automatically-android/>

### **MOISTURE MINDER**

“Wally is a sensor network you install yourself. It can detect water leaks, small changes in moisture, and temperature fluctuations anywhere in the immediate vicinity of one of its sensors. It’s supposed to give you a heads-up about everything moisture-related, from the severe (water emergencies) to the slow creep (mold build-up on floors, on walls, and in rooms where dampness lays dormant).”

—<http://www.wired.com/2014/07/wally/>

### **A CONVICTED HACKER AND AN INTERNET ICON JOIN FORCES TO THWART NSA SPYING**

“The internet is littered with burgeoning email encryption schemes aimed at thwarting NSA spying. Many of them are focused on solving the usability issues that have plagued complicated encryption schemes like PGP for years. But a new project called Dark Mail plans to go further: to hide your metadata.

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Metadata is the pernicious transaction data involving the “To”, “From” and subject fields of email that the NSA finds so valuable for tracking communications and drawing connections between people. Generally, even when email is encrypted, metadata is not. Dark Mail ambitiously aims to revamp existing email structures to hide this data while still making the system universally compatible with existing email clients.”

—<http://www.wired.com/2014/07/dark-mail-hides-metadata-from-nsa/>

### **LUNAR PITS COULD SHELTER ASTRONAUTS, REVEAL DETAILS OF HOW 'MAN IN THE MOON' FORMED**

“While the moon's surface is battered by millions of craters, it also has over 200 holes – steep-walled pits that in some cases might lead to caves that future astronauts could explore and use for shelter, according to new observations from NASA's Lunar Reconnaissance Orbiter (LRO) spacecraft. . . . The pits range in size from about 5 meters (~5 yards) across to more than 900 meters (~984 yards) in diameter, and three of them were first identified using images from the Japanese Kaguya spacecraft. Hundreds more were found using a new computer algorithm that automatically scanned thousands of high-resolution images of the lunar surface from LRO's Narrow Angle Camera (NAC).“

—[nasa.gov](http://nasa.gov)

—<http://preview.tinyurl.com/lhx5wvx>

### **10 ANSWERS TO CREDIT CARD QUESTIONS WE GET ASKED ALL THE TIME**

“Credit cards come with a lot of fine print. But the scene isn't just complicated for cardholders; it's complicated for the retailers that accept them, too. What needs signing, and what doesn't? When can a store ask for ID? Are they allowed to charge different prices for cash and credit?”

—[consumerist.com](http://consumerist.com)

—<http://preview.tinyurl.com/pvywang>

### **A READING LIST OF STORIES ABOUT THE MOON**

“ . . . to commemorate the moment—45 years ago . . . that some brave men in a rocket finally landed on the lunar surface, we're revisiting some of our favorite moon stories. “

—[theatlantic.com](http://theatlantic.com)

—<http://preview.tinyurl.com/ptqoed7>

### **BORTLE SCALE MEASURES THE NIGHT SKY'S BRIGHTNESS**

“The Bortle scale is a nine-level numeric scale that measures the night sky's brightness of a particular location. It quantifies the astronomical observability of celestial objects and the interference caused by light pollution.”

—[http://en.wikipedia.org/wiki/Bortle\\_scale](http://en.wikipedia.org/wiki/Bortle_scale)

—gsearch — <http://preview.tinyurl.com/ovu885w>

—images — <http://preview.tinyurl.com/opktyqd>

—videos — <http://preview.tinyurl.com/kf3tbl7>

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### **MARCIN KLECZYNSKI, CEO OF MALWAREBYTES, ON CYBERSECURITY AND STARTUPS**

“At 14, Marcin Kleczynski accidentally downloaded a virus into his parents' computer, which was supposed to have been protected with anti-virus software. So he set about to understand how something like that could happen and launched his career in one of the tech industry's hottest areas.

While he was in high school in Bensenville, Illinois, next to Chicago, he taught himself computer programming and learned everything he could about the nefarious world of hackers. By the time he was 18, he was racking up millions of dollars in sales from his college dorm room with his new company, Malwarebytes. And today, he proudly notes, the San Jose-based cybersecurity firm is making a profit, doubling its annual sales and boasts 141 employees, with positions open for another 40 people.”

—mercurynews.com

—<http://preview.tinyurl.com/pn4xwnv>

### **STUNNING MINIATURE GARDENS ENCASED IN CLEAR GLASS ORBS**

Master glass artist Paul Stankard is world-renowned for his delicate glass flower and insect sculptures encased in clear glass. In the series [linked] below entitled *Orbs*, Stankard expresses his love and passion for nature through these amazing glass sculptures.

To learn more about Paul and his process, be sure to check out the documentary embedded at the end of the post.

—twistedstifter.com

—<http://preview.tinyurl.com/lbrwvbw>

### **A GUIDE TO WINNING THE CUSTOMER SERVICE CANCELLATION PHONE BATTLE**

“If you want to cancel your account, you must prepare to be (occasionally) nasty.”

“So don't be afraid to pull out your own tricks to get what you want. If that means hanging up on a recalcitrant employee and powering through the call tree to get someone else on the line, then do it. Life's too short to spend it arguing with customer service reps.”

—arstechnica.com

—<http://preview.tinyurl.com/kdz7pov>

### **FLEXIBLE, PRINTED BATTERIES FOR WEARABLE DEVICES**

“Despite demand for flexible batteries, Ho says no standard has been developed for measuring their flexibility, frustrating customers who want to compare chemistries. So the company built its own test rig and began benchmarking its batteries against commercial batteries that claimed to be flexible. Existing batteries failed catastrophically after fewer than

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1,000 bending cycles, she says, while Imprint's batteries remained stable.”

—[technologyreview.com](http://technologyreview.com)

—<http://preview.tinyurl.com/qhfd53r>

### USEFUL WEBSITES

“101 Useful Websites is "a frequently updated list of lesser-known but wonderful websites and cool web apps. Here are some of the most useful websites on the internet that you may not know about. These web sites, well most of them, solve at least one problem really well and they all have simple web addresses (URLs) that you can memorize thus saving you a trip to Google.”

—<http://www.metafilter.com/141141/useful-websites>

### BUILT TO LAST

“San Francisco's Fire Department is one of the few left in the United States that still uses wooden ladders. Each is made by hand at a dedicated workshop. Some have been in rotation for nearly a century.”

—<http://www.metafilter.com/141140/Built-to-last>

### WOW, DID YOU SEE THAT? NOPE, I DID NOT

“Person Swap . . . is one of those "awareness test" things but done more with more of the flare of a magician's trick. There are a lot of interesting details in how they pulled it off.”

—<http://www.metafilter.com/141130/Wow-Did-You-See-That-Nope-I-Did-Not>

### THE MIURA FOLD: ART AND MATHEMATICS OF ORIGAMI

“The Miura fold, a type of rigid origami that works by folding flat, rigid sheets with hinges, has a number of uses. For instance, It's great for folding a map, because Interdependence of folds means that it is very difficult to reverse them and the amount of stress place on the map, and can be used on solar panels that need to be folded and unfolded by automation, as deployment only requires one motor, and to transport materials for telescope lenses that originally would be too big to fly into space. Here's one schematic for duplicating the Miura fold (PNG), and a simplified version (YouTube). More information and fun with scientific origami at Robert J. Lang's origami website.”

—<http://www.metafilter.com/141114/The-Miura-fold-art-and-mathematics-of-origami>

### FILE GOVERNOR UNLOCKS LOCKED FILES AND FOLDERS IN WINDOWS

“File Governor is a handy program that can help you resolve issues with locked files and folders on Windows. One advantage that it has over the popular Unlocker is that it is regularly updated while Unlocker was last updated more than a year ago. Still, if you already use Unlocker there is little reason to use File Governor, unless you make use of the additional utility and tools options that it makes available.”

—<http://www.ghacks.net/2014/07/20/file-governor-unlocks-locked-files-folders-windows/>

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### TRANSFER FILES AND PROGRAMS TO ANOTHER WINDOWS PC WITH TODO PCTRANS

“EaseUS Todo PCTrans is a program that makes things as easy as they can get. The program has some requirements though that you need to be aware of before you start installing it, namely that both PCs need to be connected to the same network, and that the software needs to run on both PCs at the same time.

The free version is limited in another way: it limits the applications that you can transfer to two. That's usually not enough even though it may provide you with the means to move two important programs to the new PC.”

—ghacks

—<http://preview.tinyurl.com/kx5hqu8>

### THE MEANING OF EXPONENTIAL

“Why populations explode, and why traces of radioactive elements can hang around for a very long time.”

—<http://preview.tinyurl.com/ozrfffo>

The comments were even more enlightening—

- chalkandcheese

I must have taken my stupid pill already; I understood the first paragraph and then, the more I read, the less I understood this article.

- dirkbruere

What does exponential mean, from a gut feeling point of view? Well, imagine you are in a large stadium capable of holding a hundred thousand people and you are sitting on the back row at the highest point. Also imagine, for the sake of argument, that it is watertight and can be filled. Anyway, someone comes onto the pitch and adds a single drop of water to the grass, and then two drops, and then four and so on, doubling the amount added every minute.

How long before you drown? The answer is around forty six minutes. The real surprise is this: that until the last few minutes you do not even see the water soaking into the pitch. By the time you notice the grass is wet you have less than eight minutes to live. By the time you start to panic you are within a minute of dying.

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- **Wolfbone**

The Greatest Shortcoming of the Human Race is our Inability to Understand The Exponential Function. [Links to an engrossing Youtube video 1.25-hour lecture by Al Bartlett—

—video—<https://www.youtube.com/watch?v=umFnrvCS6AQ> [Note: It presents arguments against population and consumption growth.]

—al bartlett, emeritus Professor of Physics at the University of Colorado at Boulder—  
<http://tinyurl.com/n8o6u96>

### **MEET THE ONLINE TRACKING DEVICE THAT IS VIRTUALLY IMPOSSIBLE TO BLOCK**

“A new kind of tracking tool, canvas fingerprinting, is being used to follow visitors to thousands of top websites, from WhiteHouse.gov to YouPorn. . . . The researchers found canvas fingerprinting computer code, primarily written by a company called AddThis, on 5 percent of the top 100,000 websites. Most of the code was on websites that use AddThis’ social media sharing tools. Other fingerprinters include the German digital marketer Ligatus and the Canadian dating site Plentyoffish.”

—propublica.org

—<http://preview.tinyurl.com/moe3hz8>

### **HOW COMPANIES USE CANVAS FINGERPRINTING TO TRACK YOU ONLINE**

“The Panopticlick page on the EFF website runs a fingerprinting test that reveals how unique your browser really is. While that is great, any change made to the browser or system, like an upgrade to a new version, a new computer monitor, or a new plugin version will change the unique fingerprint of the browser.”

Go to ghacks for the live links to the items in this list (copied from

<http://www.ghacks.net/2014/07/21/companies-use-canvas-fingerprinting-track-online/>)

Resources and further reading

The following list links to resources that provide with additional information about Canvas fingerprinting:

- **Canvas Fingerprinting Sites** - Lists sites sorted by Alexa rank that use fingerprinting scripts.
- **Cross-browser fingerprinting test 2.0** - Another fingerprinting test.
- **Fingerprinting Guidance** - Document that defines different types of fingerprinting.
- **Mozilla Wiki entry on Fingerprinting**
- **Pixel Perfect: Fingerprinting Canvas in HTML** - The research paper from 2012 which mentioned the method first.

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- **The Web never forgets: Persistent tracking mechanisms in the wild** - Research paper from Princeton and KU Leuven, Belgium that analyzes several fingerprinting methods including canvas, evercookies and cookie syncing.

Now Read: **Modify your browser's fingerprint**

—<http://www.ghacks.net/2014/07/21/companies-use-canvas-fingerprinting-track-online/>

### 'CANVAS FINGERPRINTING' ONLINE TRACKING IS SNEAKY BUT EASY TO HALT

A method for tracking users across the Internet called “canvas fingerprinting” is simple to stop, but average Internet users may not know how to do it.

A research paper concluded that code used for canvas fingerprinting had been in use earlier this year on 5,000 or so popular websites, unknown to most. Most but not all the sites observed used a content-sharing widget from the company AddThis.”

“But of several emerging tracking methods, canvas fingerprinting isn’t the greatest: it’s not terribly accurate, and can be blocked.”

—[pcworld.com](http://pcworld.com)

—<http://preview.tinyurl.com/kx7dscq>

### WHAT YOU NEED TO KNOW ABOUT THE SNEAKIEST NEW ONLINE TRACKING TOOL

“As many readers have pointed out, you can also install the Electronic Frontier Foundation's Privacy Badger browser extension, which I do recommend, because the EFF is excellent. It can't track fingerprinting every time, but it will help limit your exposure.”

—[gizmodo.com](http://gizmodo.com)

—<http://preview.tinyurl.com/lwhqhts>

### THIS SITE IS CYBERSTALKING YOUR CAT FOR YOUR OWN GOOD

“If you wouldn’t post your home address on the Internet, make sure you aren’t uploading or sending geotagged photos. That’s where the site *I Know Where Your Cat Lives* comes in, combining education about online privacy with pictures of cats. IKWYCL takes public photos posted on sites like Flickr and Instagram that come with geographic data included and plots them on a map. A global map of cats.”

—<http://consumerist.com/2014/07/22/this-guy-is-cyberstalking-your-cat-for-your-own-good/>

### YO: WHY THE SILLIEST APP IN TECH MAKES THE NSA LOOK RIDICULOUS

“Have you used Yo yet? I'm getting pretty into it. It's a silly little app that literally just sends the word "Yo" to a friend's phone. If you have audio alerts turned on, a hyperactive little man also yells Yo at you, which is adorable and terrible all at once.

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Yo is surprisingly popular and growing fast; last week the company received another \$1.5 million in venture capital after getting an initial \$1m last month. The ultimate goal is to build out an entire Yo network to try and rethink how notifications work. It's a particularly good example of the tech industry building a seemingly-ridiculous solution to a small problem that contains the germ of a much bigger idea within it. Yo might succeed or it might fail, but for the moment it's pretty fun to play with."

—vox.com

—<http://preview.tinyurl.com/otcu227>

### **HOW TO SEND EMAIL WITHOUT LEAVING ANY DATA TRACES**

"Metadata are what allows email to be passed along the Internet to a final destination, but could reveal sensitive information such as the name of medical clinics, businesses or political parties with which one is in touch. A new service called ShazzleMail eliminates metadata by delivering the email directly from your computer or smartphone to the recipient. It calls itself "the first privacy protective and surveillance-resistant secure email service."

—forbes.com

—<http://preview.tinyurl.com/p5uqm7n>

### **HOW TO REMOVE PERSONAL INFORMATION FROM YOUR DIGITAL PHOTOS**

" Before sharing your digital photographs over email or on a public website, learn how to remove the camera EXIF data, GPS location and other metadata from these images."

—<http://www.labnol.org/software/remove-photograph-metadata/19588/>

—contributed by Dody Lee

### **EASY WAY TO CUSTOMIZE THE SYSTEM FOLDERS "COMPUTER" IN WINDOWS 7 AND 8 AND "THIS PC" IN WINDOWS 8.1**

"The system folder that was once called My Computer became simply Computer in Windows 7/8 and has now morphed into This PC in Windows 8.1. Whatever you call it, it is convenient to be able to modify its contents to suit your own way of doing things. Computer and This PC are not regular folders so you can't just add or delete a shortcut or file there the usual way. However, there is a free portable utility that makes it easy to edit the contents to suit yourself."

—techsupportalert.com

—<http://preview.tinyurl.com/kxk559f>

### **HOW TO INVENT A PERSON ONLINE**

"It's not an exaggeration to say everything you do online is being followed. And the more precisely a company can tailor your online experience, the more money it can make from advertisers. As a result, the Internet you see is different from the Internet anyone else might see. It's seamlessly assembled each millisecond, designed specifically to influence

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you. I began to wonder what it would be like to evade this constant digital surveillance—to disappear online. From that question, Aaron Brown was born.”

““The Internet is what we make it,” wrote security researcher Bruce Schneier in January 2013, “and is constantly being recreated by organizations, companies, and countries with specific interests and agendas. Either we fight for a seat at the table, or the future of the Internet becomes something that is done to us.””

—theatlantic.com

—<http://preview.tinyurl.com/k6ovjv7>

### **HOW YOUR SECURITY SYSTEM COULD BE HACKED TO SPY ON YOU**

“Lamb is a cybersecurity researcher at the Department of Energy’s Oak Ridge National Laboratory. “I primarily break things,” he explains. He started probing security systems in his spare time after a co-worker ordered one at the office. He was able to play around with an ADT system thanks to the graciousness of his girlfriend’s father, who had one at home. The different vendors’ products all had the same problem: legacy wireless communications from the 90s that failed to encrypt or authenticate signals. He could be pick up the signals being sent from sensors on windows and doors to the main control system using a cheap SDR, meaning he could see transmissions from sensors — which are sent even when the system is unarmed — and track when people were opening and closing windows and doors.

With a more sophisticated SDR, he could interfere with transmissions, setting the alarm off falsely by telling it doors were opening when they weren’t or jamming the system so that it wouldn’t go off, even if doors did open. He could do this from 65 to 250 yards away— basically a house over. Using his methods, a would-be tech-savvy thief could suppress an alarm while going in and out with your stuff; a prankster neighbor could set your alarm off; or someone could monitor when you’re active at the house. At the very least, someone with an SDR could determine based on signals being sent whether you actually have an alarm system, or have just planted a “Protected by ADT” sign in your front yard.”

—forbes.com

—<http://preview.tinyurl.com/nfoeo9t>

### **A MUSICAL ACCOMPANIMENT TO THE NEXT SEVERAL ITEMS**

- Fifth Dimension—Up Up & Away  
—[https://www.youtube.com/watch?v=cbj-jzzY\\_fm](https://www.youtube.com/watch?v=cbj-jzzY_fm)
- Frank Sinatra—Come Fly with Me  
—<https://www.youtube.com/watch?v=SLC5AGGHLz0>
- Shirley Temple—On the Good Ship Lollipop  
—<https://www.youtube.com/watch?v=1r4bbgv1lf8>

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- United Airlines Theme—Rhapsody in Blue  
—<https://www.youtube.com/watch?v=amreUH068UM.co.uk>
- American Airlines' Music 'til Dawn theme—That's All—Cy Mann original  
—<https://www.youtube.com/watch?v=kDNqq9npZHc>

### **WATCH TEST PILOTS PUSH THE NEW BOEING JET TO TERRIFYING LIMITS**

After delivering the first 787-9 Dreamliner jet to Air New Zealand last week, Boeing took a victory lap, showing off exactly what the plane can do when pushed to its limits.

The plane's maneuvers during a six and a half minute demonstration flight, at the Farnborough International Airshow outside London, were not quite as awesome as the barrel roll test pilot Tex Johnston pulled off in a Boeing 707 in 1955. They were, however, way more extreme than anything a passenger would want to sit through.

— <http://preview.tinyurl.com/l42wthy>

### **A ROADMAP TO THE BAY AREA'S HIGHWAYS IN THE SKY**

"This is a clean version of an illuminating FAA graphic I saw recently on the wall at Moffett Federal Airfield down in Mountain View. It's a guide to the air traffic routes used at airports around the San Francisco Bay Area — a roadmap of the highways in our skies."

—<http://laughingsquid.com/a-roadmap-to-the-bay-areas-highways-in-the-sky/>

—gsearch [Bay Area Flight Patterns] — <http://preview.tinyurl.com/q95bndj>

—images — <http://preview.tinyurl.com/m2cyfqs>

### **VFR RASTER CHARTS**

"The Federal Aviation Administration (FAA) digital-Visual Chart series is designed to meet the needs of users who require georeferenced raster images of FAA Visual Flight Rules (VFR) charts. An Aeronautical Raster Chart is a digital image of an FAA VFR Chart. All information that is part of the paper chart is included in the file. The area inside the neat line is georeferenced to the surface of the earth. Only the main body of the chart is accurately georeferenced."

—[https://www.faa.gov/air\\_traffic/flight\\_info/aeronav/digital\\_products/vfr/](https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/vfr/)

—gsearch [aeronautical chart Bay Area] — <http://preview.tinyurl.com/pn9scx9>

### **A SPOTLIGHT DRONE THAT ACTS LIKE A FLYING PHOTO ASSISTANT**

"... he and a team bought an AR.Drone quadricopter off Amazon, and rigged it with lights, a motion detecting scanner similar to Kinect, and some newly customized software that would let the drone's positioning respond to the photographer's needs."

—<http://www.wired.com/2014/07/this-drone-could-be-the-ultimate-photographers-assistant/>

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### GETTING STARTED WITH DRONES

“Everything you need to know about how drones work, how to fly them and modify them.”  
—<http://paulstamatiou.com/getting-started-with-drones-quadcopters/>

### THE DRONE YOU SHOULD BUY RIGHT NOW

“Drones are the highly evolved descendants of the RC helicopters and model planes that hobbyists have been flying for decades. What changed? Basically, the rise of smartphones meant a lot of important components — magnetometers, gyros, batteries, cameras, accelerometers, radios, GPS modules, and processors — got a lot smaller and cheaper. Suddenly this wasn’t just a cool toy, but also an aerial camera that could capture amazing angles normally reserved for Hollywood. Add the fact that now you can also pair your drone with the smartphone in your pocket, and today’s units can deliver a ton of advanced capabilities for less than \$1,000.”

—<http://www.theverge.com/2014/7/31/5954891/best-drone-you-can-buy>

### THE WORLD'S MOST POPULAR DRONE IS A MAGNET FOR RECKLESS PILOTS

“It's the DJI Phantom [a little white drone you can buy on Amazon for less than \$500], and it's the drone that's turned its Hong Kong-based manufacturer into the top hobby drone manufacturer. It's also causing headaches for regulators, for DJI, and for old timers in the drone hobby, simply because it's so damn popular.”

—[motherboard.vice.com](http://motherboard.vice.com)

—<http://preview.tinyurl.com/nn2sh85>

### NEW PHONES ABOARD AIR FORCE ONE

“As unbelievable as it sounds, the telephone sets used aboard this plane dated back to the 1980s and so they were finally replaced by new ones in August 2012. Here we will take a look at this new telephone equipment, which is now used by president Obama when he travels by air.”

—<http://electrospace.blogspot.com/2014/07/new-phones-aboard-air-force-one.html>

### KEYME — THE APP I USED TO BREAK INTO MY NEIGHBOR'S HOME

“Leave your ring of cut-brass secrets unattended on your desk at work, at a bar table while you buy another round, or in a hotel room, and any stranger—or friend—can upload your keys to their online collection. The trick is far easier than having them copied at a hardware store. KeyMe says it will even duplicate keys marked “do not duplicate,” including some high-security keys sold by Medeco, Mul-T-lock and Schlage. Parking valets suddenly require a ludicrous level of trust: KeyMe already allows some car keys to be scanned and mail-ordered; KeysDuplicated says that feature is on the way.”

—<http://www.wired.com/2014/07/keyme-let-me-break-in/>

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### **PASTE PASSWORDS INTO BLOCKED FORM FIELDS ON THE INTERNET**

“Most Internet services don't prevent you from pasting information into password fields or other form fields on websites. Some on the other hand restrict pasting to select fields or none at all, which means that you need to fill out those fields manually as you cannot use copy and paste to do so. One example that I [Martin Brinkmann] encountered just recently: I added a couple of items to a cart on [a] site and was asked to create an account to complete the purchase.

Both the repeat email address field and confirm password field are locked on the site, blocking you from pasting text into them. I use KeePass to generate unique passwords for websites and paste the information into the forms. Since I was not able to do so for one field, and had no desire to type a 30+ character password into the confirm password field, I had to find a way to bypass the restriction.”

To learn how to bypass the restriction, read the article.

—<http://www.ghacks.net/2014/07/26/paste-passwords-blocked-form-fields-internet/>

### **SPOON & TAMAGO**

“Founded in 2007, Spoon & Tamago is an international blog that is based out of New York City and Tokyo Japan. It is written by artist and writer Johnny Strategy. Drawing from an extensive multicultural database and resources, Spoon & Tamago attempts to comprehensively cover all aspects of Japanese design from fine art and architecture to product and graphic design.”

[Note: Some items possibly NSFW. NSFW is in the mind of the beholder.]

—<http://www.spoon-tamago.com/about/>

### **THE FIVE GREATEST SPACE HACKS OF ALL TIME**

“Space missions are amazingly well-prepared affairs, every action and procedure is followed, right down to the most minute detail. But sometimes mishaps and emergencies occur. Some can be dealt with by sophisticated sensors and equipment. Some can be dealt with on Earth from Mission Control. But sometimes the only option is for an astronaut to get their hands dirty, using whatever comes to hand and a bit of DIY know-how. It's amazing what has been grabbed, bent and improvised to save red faces – or, indeed, the lives of astronauts.”

<http://www.bbc.com/future/story/20140725-the-five-greatest-space-hacks>

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### **AMAZON FIREFLY VS. FRED MEYER:**

#### **WHAT HAPPENED WHEN WE TOOK A FIRE PHONE TO A LOCAL STORE**

“With one long push of the button on the left side of the device, the Fire phone sprang to life — using its camera and special software to instantly recognize the Black & Decker 4-Slice Toaster on the shelf, and then quickly find the same product in Amazon’s catalog. Three clicks later, we had used the phone to buy the toaster from Amazon for \$39.99 — \$10 less than Fred Meyer’s price — to be delivered to our doorstep in two days with free shipping, thanks to the one-year Amazon Prime subscription offered with the device.”

—geekwire.com

—<http://preview.tinyurl.com/o9vjnez>

#### **THE WEIRD, UNDERAPPRECIATED WORLD OF PLASTIC PACKAGING**

“Food companies often spend a lot of time coming up with the perfect packaging to best preserve each product they sell, Brody says. So does the military. As we’ve reported, the Army figured out how to package a sandwich that stays fresh for up to two years.”

—www.npr.org

—<http://preview.tinyurl.com/pg4o7jb>

#### **EASY WAY TO CUSTOMIZE THE SYSTEM FOLDERS “COMPUTER” IN WINDOWS 7 AND 8 AND “THIS PC” IN WINDOWS 8.1**

“The system folder that was once called My Computer became simply Computer in Windows 7/8 and has now morphed into This PC in Windows 8.1. Whatever you call it, it is convenient to be able to modify its contents to suit your own way of doing things. Computer and This PC are not regular folders so you can’t just add or delete a shortcut or file there the usual way. However, there is a free portable utility that makes it easy to edit the contents to suit yourself. The utility is called “This PC Tweaker” and is from WinAero.”

—gizmo

—<http://preview.tinyurl.com/kxk559f>

#### **FOUR WAYS TO MAKE WINDOWS XP SYSTEMS MORE SECURE**

“Because safety is very dependent on individual habits and skills, I won’t comment on the controversial issue of whether continuing to use XP is safe. However, a lot of Gizmo’s readers are still using Windows XP so I thought it worth passing along some tips on how to make XP systems more secure. If you are determined to continue using XP, here are four ways to help keep your system safer.”

—gizmo

—<http://preview.tinyurl.com/mq5j4cz>

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### **NEW HEAD OF PRESTIGIOUS PHYSICS INSTITUTE DESCRIBES HER HUNT FOR DARK MATTER**

“QUANTA: Tell me about one of your latest interests, dark stars.

FREESE: If dark matter is made of WIMPs [weakly interacting massive particles], then the first stars that formed would be powered by dark matter instead of by fusion. These stars formed when the universe was 200 million years old. At that point you don't have galaxies yet, but you have smaller lumps of structure that are about a million solar masses in size. The idea about how stars form is that smack in the middle of those lumps you have a collapsing cloud of hydrogen and helium. In the standard picture of star formation, this thing would collapse until it got very tiny and then fusion would start.”

—<http://www.wired.com/2014/07/katherine-freeze-dark-matter/>

### **MELBOURNE-MADE 3D-PRINTED BODY PARTS COULD REPLACE CADAVERS FOR MEDICAL TRAINING**

“A team of medical experts in Melbourne has created a 3D-printed anatomy kit that is set to revolutionise medical training around the world. The printed body parts which look almost exactly the same as the real thing can be used to replace difficult to get and expensive cadavers that are crucial for training doctors.”

—[www.abc.net.au](http://www.abc.net.au)

—<http://preview.tinyurl.com/n2mt8ca>

### **WHAT HAPPENS IF YOU GET HIT BY THE MAIN BEAM OF A PARTICLE ACCELERATOR LIKE THE LHC?**

“Well, fortunately (unfortunately?) we don't have to guess, as this exact scenario actually happened to Anatoli Bugorski, a Russian scientist, way back in 1978. . . .At the time, Bugorski reported seeing a flash that was “brighter than a thousand suns,” but otherwise didn't feel any pain. Over the next few days, the left side of his head swelled up “beyond recognition,” and then his skin started peeling off. Bugorski was moved to Moscow, where doctors avidly observed his expected demise — but, curiously enough, he survived. The left side of his face is paralyzed (due to nerve damage), his left ear is shot (all he can hear is an “unpleasant internal noise”), and he occasionally suffers from seizures, but otherwise Bugorski was relatively unscathed by the accident. He went on to complete his PhD — and he's still alive today.”

—[www.extremetech.com](http://www.extremetech.com)

—<http://preview.tinyurl.com/nqdcw2u>

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### GOOGLE SIGHTSEEING

“Why bother seeing the world for real? . . . Google Sightseeing takes you on a tour of the world as seen from satellite, using the free Google Earth program, or Google Maps in your web browser. Our team of authors present weird and wonderful sights as suggested by readers.”

—<http://googlesightseeing.com/>

—gsearch [google sightseeing]—<http://preview.tinyurl.com/o9ag2uf>

### GOOGLE MAPS 45 DEGREE IMAGERY

gsearch [google maps 45 degree]—<http://preview.tinyurl.com/k7xrefn>

### A SURGEON'S POV OF A COMPLETE KNEE REPLACEMENT

“Very graphic (but also really cool.)” **Note:** Your editor couldn't continue watching when the cutting began, two minutes into the video. I think narration might have helped overcome his squeamishness.

—<http://digg.com/video/a-surgeons-pov-of-a-complete-knee-replacement>

### INFLUENZA: HOW THE GREAT WAR HELPED CREATE THE GREATEST PANDEMIC EVER KNOWN

Despite our modern antiviral and antibacterial drugs, vaccines, and prevention knowledge, we are not immune to another pandemic virus. Even today, we can still hear the ghostly echoes of influenza in news reports about the emergent ebola virus and its deadly outbreak in several African nations. With the advent of ever faster travel options and as more people travel ever greater distances for work and for pleasure, the possibility exists that another great pandemic awaits, just on the horizon. Only by gaining a clearer understanding of the historic, epidemiologic, and biologic aspects of the 1918 influenza pandemic will we be able to better prepare for what lies ahead.”

—[www.theguardian.com](http://www.theguardian.com)

—<http://preview.tinyurl.com/ofrx3ar>

### SQUARE BETS BIG ON NEXT-GEN CREDIT CARD TECH

“Up until now, Square's card readers were designed for a single motion: the swipe. But chip-based cards don't work that way. . . . The chips themselves are visibly located in the middle on the left end of the cards, and most readers use a slot that resembles a shorter version of an ATM for dipping in the entire end of the card. Also, unlike magnetic-stripe cards, chip cards stay in the reader for the duration of the transaction. A Square reader the width of an entire credit card—which is almost exactly the width of an iPhone 5s—would be unwieldy. So Square opted instead for a partial slot that takes just the upper left corner of the card, which keeps the new reader reasonably smaller than the phone, though significantly larger than its current swipe-only reader.

—<http://www.wired.com/2014/07/exclusive-square-bets-big-on-next-gen-credit-card-tech/>

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### **AN INFRARED IPHONE CASE THAT LETS YOU SEE IN THE DARK**

“There used to be a time when thermal-imaging aficionados had to walk around with goggles strapped to their faces. . . . Those dark days are over now thanks to the FLIR One. This iPhone 5/5s case features two side-by-side cameras on its backside: An infrared one and a VGA one that adds a bit more detail to the blobby heat-mapped image. The case also has its own built-in battery, a 1400mAh unit that powers things for a couple of hours. That battery won’t charge your iPhone, but it does prevent the case from having to sip off the iPhone’s charge.”

—<http://www.wired.com/2014/07/flir-infrared-iphone-case/>

### **SHRIMP RG**

#### **(SENSITIVE HIGH RESOLUTION ION MICRO PROBE REVERSE GEOMETRY)**

“The SHRIMP RG is at Stanford University as a result of a partnership between the U.S. Geological Survey and Stanford University School of Earth Sciences. The laboratory is run for the mutual benefit of the two parties with cost and analytical time being shared. The laboratory is also available to outside visitors on a cost recovery basis as time allows.”

—<http://shrimprg.stanford.edu/>

—<http://www.wired.com/2014/07/eruptions-summer-break-2/>

### **COULD SILICON VALLEY BECOME THE NEXT CAMDEN, NEW JERSEY?**

“From phonographs to smartphones, no technology—or industry—is immune to change. . . . “Eventually,” Bill Gates famously said, “all companies are replaced.””

—[www.citylab.com](http://www.citylab.com)

—<http://preview.tinyurl.com/owmcy96>

### **INSIDE CITIZEN LAB, THE “HACKER HOTHOUSE” PROTECTING YOU FROM BIG BROTHER**

“From exposing the espionage ring that hacked the Dalai Lama to uncovering the commercial spyware being sold to repressive regimes, Citizen Lab has played a pioneering role in combing the Internet to illuminate covert landscapes of global surveillance and censorship. At the same time, it’s also taken the role of an ambassador, connecting the Internet’s various stakeholders from governments to security engineers and civil rights activists.”

—[arstechnica.com](http://arstechnica.com)

—<http://preview.tinyurl.com/kf3ywhz>

### **THE CURIOUS EVOLUTION OF ARTIFICIAL LIFE**

“When it comes to research into Artificial Life, commercial projects have begun to outpace academic ones. . . . The term “Artificial Life” emerged in 1986 when the American computer scientist Christopher Langton coined it while organizing the first “Workshop on the Synthe-

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sis and Simulation of Living Systems.” Since then the idea of artificial life has spread through computer science into gaming, the study of artificial intelligence, and beyond. —<http://www.technologyreview.com/view/529491/the-curious-evolution-of-artificial-life/>

### **THE HUBBLE FOUND A GALAXY SO HUGE, IT ACTS LIKE A MAGNIFYING GLASS**

““Lensing” galaxies are so huge that they act like magnifying glasses for the space behind them. Their gravity can bend and distort light from smaller galaxies further beyond.

Now, scientists using NASA’s Hubble Space Telescope have unexpectedly found the most distant lensing galaxy to date. Its light has taken 9.6 billion years to reach us (200 million light years closer than the previous record holder), and the object it’s magnifying – a tiny spiral galaxy that we can now see undergoing a surge of star formation – is 10.7 billion light years away. Kenneth Wong, one of the researchers to announce the discovery, said in a NASA press release that these cosmic magnifiers aren’t all that rare. But to find outside of our stellar backyard is a special treat.”

—[www.washingtonpost.com](http://www.washingtonpost.com)

—<http://preview.tinyurl.com/mol6c9c>

### **HOW TIMES SQUARE WORKS**

“As the D3 technician told me, the LED displays are effectively giant computers. In fact, each of the individual modules is equipped with its own processor that coordinates with the rest of the modules to create one huge seamless image. The whole thing is internet-connected, too, so it can be controlled remotely. Meric told me that he gets push notifications on his phone if a sign has a problem, and no matter where he is in the world, he can troubleshoot on the fly.”

—<http://gizmodo.com/how-times-square-works-1582269710>

### **CROWDSOURCING LIGHTNING STRIKES ACTUALLY WORKS PRETTY WELL**

“This enthralling cartography of the crackling skies was made by the people behind Blitzortung, an ambitious and geographically sprawling attempt to crowdsource foul weather. Years back, the Dusseldorf-based network began assisting the meteorologically curious in setting up relatively low-priced lightning detectors, which then feed data back to central servers. With more than 800 participants now hailing from the U.K. to Mexico to New Zealand and beyond, Blitzortung has in effect created a planetary picture of where things are getting zapped, with an expanding circle on its maps marking the spot of a seconds-old bolt.”

—[www.citylab.com](http://www.citylab.com)

—<http://preview.tinyurl.com/pbxv7bl>

