# Print Screenber 2014 Screenber 2014

The Newsletter of SPAUG
Stanford Palo Alto Users
Group
pa-spaug.org

### Computers and Technology

### September Musings from Your President by Brad Youngman

### UPGRADING PCS

This has been an interesting month, excitement and worry provided by the upgrade of seven Windows 7 Home Premium computers to the Pro version of the operating software.

The process is easy if you have only one computer to deal with.

- 1. Make sure your machine is clean no malware, all software updated to current versions, etc.
- 2. Click on the Windows Icon on the lower left of your screen, right click on "Computer" and left click on "Properties." You will see "Get more features..."
- 3. Choose among the several levels of upgrade the one you want and go through the process of buying it from Microsoft. You may then hit the install key to upgrade your computer.

(Continued on page 4) ▶

### SPAUG Meetings

### General Meeting

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

September 10, 2014, **7:00** pm

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 September 24, 7:15 pm, Brad Youngman's home, Sunnyvale

NOTE: This is a different location than usual



### **Our Migrating Board/Planning Meeting**

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

- 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

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

### **SPAUG Contacts**

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

Please help us.

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

#### **Program co-Chairs:**

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

### President Emeritus; Elks Liaison:

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

Vice President: John Sleeman sleemanjc@copperhouse.net 650-326-5603

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

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

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

#### WebMasters:

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

Newsletter Editor: John Buck
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#### **Newsletter Production:**

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

Computer Clinic: Jim Dinkey (see above)

### ▶ ▶ Positions Open:

Publicity

### Meeting Day: Wednesday, September 10

### **General Meeting**

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

### Meeting time is 7:00 pm

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 Cabaña hotel. <u>Map</u>—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 Starting 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

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

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

Dinner time is 5:45 pm

**◄** (Continued from page 1)

#### UPGRADING A FLEET OF PCS

- 1. At the Sunnyvale Senior Center, we wanted to upgrade from a clean installation of Windows 7 Home Premium, so we did not install the upgrade, but printed the purchase slip with the new installation key. Microsoft will also send you an email with the key and purchase information. We did this for our seven Sony All-In-Ones and a home-built 2-core AMD machine.
- 2. Then we ran Belarc Advisor for all machines and printed the results. This contained all of the original installation keys for the software on the machine.
- 3. Next we uninstalled Microsoft Office from all computers and Microsoft remembers that the Office software is removed.
- 4. Next we slipped in a generic Windows 7 Home Premium disk and went through the normal installation process for the home-built and one Sony using the original software key recorded on the Belarc Advisor print-out.
- 5. When the process was complete we went back to the "Get more features..." screen, selected the "Enter an upgrade key" and typed in the key that we just bought.
- 6. At this point the upgrade is in process, downloading material from the mothership (er, Microsoft). Some time is required but let the process run to completion.
- 7. Now you must do all of the updates for the new version of Windows. You can wait for Microsoft to discover that you need updates or force them yourself. You do this over and over until you are sure that there are no more updates. When the updating process is complete add your software except Office.

The process described above took about four 9-hour work days, most of the time waiting for the Microsoft downloads. Painful! I can do a complete Linux Mint installation, ready for the user, in a couple of hours. We hoped to avoid the agony of two days of work for each machine.

- 8. The next step in our upgrade process was to make a Macrium Reflect image of the upgraded Sony computer. Our hope was that we could restore the image to the remaining Sonys and then go through the simple process of changing the product key on the Windows properties screen. We had much discussion. "It will probably work", "Microsoft will block it", "The money spent in the upgrade keys will be wasted" and other such helpful comments. Because of the uncertainty, we did not buy the upgrade keys for four of the machines until the experiment proved productive. If it had not worked, we would have only lost \$90 for one upgrade key.
- 9. Yours truly went through the Macrium Reflect reinstallation on the second Sony. But before this, we made sure that the first Sony was not online. We surely didn't want two machines to show up on Microsoft's screens that had the same product key! When the reinstallation was complete we changed the product key to the one purchased for the second machine. And the result of this grand experiment: IT WORKED. Two days of work on the first Sony was replicated on the second Sony in just 10 minutes or so. At this point in the adventure we purchased, but did not install the remaining upgrade keys.

- **◄** (Continued from page 4)
- 10. The second to final step was to repeat the image installation and key change for the remaining machines -- ten minutes or so for each one. Very quick.
- 11. Reinstallation of Microsoft Office 2007 for the six Sonys and 2010 for the AMD machine was followed by making a final image for each of the machines.

#### DONE!

Now that we have Windows 7 Pro, we can define the environment of a User Account for the general users.

- We will deny them the ability to change the desktop environment,
- We will not allow the installation or removal of software, nor will we permit the storage of personal documents.
- We will make other settings that will erase user changes when the machines are turned off at the close of the day.
- And we hope that the machines will remain nearly identical in the future.
- We plan to make images on a monthly basis so that if a user cobbles up a machine, all we have to do is go back a month, remount an image and do a month's worth of updates on the operating system and software. All we have to do is find a volunteer who will remember to do the work.

A generous soul has offered the Senior Center operation an old server rack. It would be nice if we could make a professional installation with it, using server based Windows software that could be easily updated and passed to each of the computers on the network. This would cost money that we probably will never have. But we can use the thing as a network storage device. I hope we get it and are able to put it in place. It will serve as the repository of the monthly computer images.

Another thing we will do is to define our current network so that it will only recognize the devices that are supposed to be connected. All other connections will be refused. This will defend our network from infested devices and preserve the bandwidth to approved devices. Another thing that we will do is to cap the bandwidth to each approved device, thereby preventing someone who wants to watch a movie from hogging network resources.

All of this is probably pretty basic to those of you who have dealt with the administration of computer networks. But what we have is essentially a home network on Comcast. This works pretty well with the few machines that will simultaneously show up on a local home network. But we have

- seven Windows 7 Pro machines,
- one Windows 8.1 Pro machine with big touchscreen,
- one medium sized Apple All-In-One and
- two Linux Mint computers
- —all running simultaneously.

**◄** (Continued from page 5)

That is a lot for a home network. And no one knows how many are logged on to the wifi device. The wifi bandwidth is also going to be capped!

And now I can return to futzing about with my own simple network of well-behaved machines, repairing computers for senior center members, and attending to the daily life of a retired person. Last week was very much like "working." Nine or ten hours (with lunch break) working and a few hours awake at home in the evening. The rest trying to sleep, but waking early to worry about getting the system upgrade done in the two weeks allotted. It is clear now that we will meet the schedule. I don't think that I will ever volunteer for such duty again. We need to fine younger folk still used to such schedules.

### **August 13, 2014 General Meeting Notes**

by Stan Hutchings, (edited for use here)

#### RANDOM ACCESS AND ANNOUNCEMENTS

- Brad Youngman encouraged members to **bring guests** to build up our membership.
- John Buck with Dody Lee announced a **Better Part TV program interview** Thursday, September 18 in Mountain View. People will be interviewed in the Better Part TV studio. John Buck asked for volunteers. Dody Lee asked for volunteers to describe their experiences with SPAUG. Send any comments to Dody Lee or John Buck.
- **PDF Creator wanted to install Chrome.** Box was unchecked, but after installation a different search engine was the default.

How to get rid of it? You could first use *Control Panel - Recovery - System Restore* to revert to a previous state. That would probably remove PDF Creator too. [see http://preview.tinyurl.com/odt8yyu for how to change the default search engine for Chrome, Firefox and Internet Explorer]

To **uninstall** programs, use the *Control Panel - Programs and Features*, delete the offending program, and reboot afterwards; then use CCleaner to fix registry or the remove program feature in CCleaner. Be careful what you click on! Some downloads include a tag-along that you may not want. The Ask toolbar is especially difficult to remove.

- Is there a program to play streaming audio in Win7 Home Premium?
  - iHeart in Win7 will play radio, including FM 98.1 KISS. You can use it to search for stations using various criteria.
  - VLC is also a good player; it is FREE. For help, read their Streaming HowTo/Streaming, Muxers and Codecs.

- **◄** (Continued from page 6)
  - Many online radio stations, such as KDFC, have an online presence, i.e., www.kdfc.com. There is a "Listen LIve" button, which when pressed, will connect to the Triton player (works with Adobe Flash player).
  - Real Player was also suggested as an audio application for MP3 files.
- An S4 "smart phone" gives no way to get data in or out of the memory that was added except by removing the memory. The AT&T reps could not help, and Google search did not turn up any help.
- A Win7 computer hung up on the monthly Microsoft updates. It was attached to several devices, TV, external speakers, cooling mat. After disconnecting everything from the computer, the update worked successfully. It's possible some of the updates needed to access a DLL or other application. Moral: disconnect all external devices before applying the monthly updates.

### Break - Thank you, Christie, for arranging for the cookies and coffee.

#### PRESENTATION: ALLEN REAM

Concept of modern technology has changed. Mentioned the changes since 32 and 16 years ago in Computer magazine published by The IEEE Computer Society.

Allen took the first MIT undergrad computer course in 1960, programming in Assembly. Got 3 minutes access at 3 am. He explained the derivation of the term "hacker" - connotates sloppy, impatient, inelegant, computing, but not evil or malicious.

Described how his thesis on the analysis of EEG arose from the attempt to bounce radar off Venus.

He went on to Medical School joining the bioengineering department at Northwestern, where the Medical school needed a computer. Because of the CPU and memory-intensive requirements of physiological models, he had to get time on a business computer to run the medical simulations. At that time, ferrite core at about a dollar a bit with 8 KB memory was state-of-the-art.

There were programs to build an artificial heart using a heat engine powered by radioactive isotopes. This was not feasible due to the extreme toxicity of plutonium; but also the low 8% efficiency. But a solenoid was developed at UC Berkeley that was close to 100% effi-

(Continued on page 10—in the online version only) ▶

#### 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.

### Page 8 SPAUG Newsletter—Print Screen September 2014

SPAUG CALENDAR													
Always subject to change; verify event with host, or a Board or Planning Committee member.													
1	Mon	Tue	Wed	Thu	Fri	Sat							

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	<sup>1</sup> Labor Da	ų	3			<b>6</b> —Clinic, by appointment
	e: is are on Vacation		10 5:45 pm Dinner (Optional), Elks Lodge—Bistro 7:00 pm General Meeting Elks Lodge, 4249 El Camino, PA			13—Clinic, by appointment only
			17			20—Clinic, by appointment only
	Not All the SIG a Summer		7:15 pm Board and Planning Mtg Brad Youngman's home			27—Clinic, by appointment only
	a Sı		1			4—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, September 24, 7:15 pm,
Brad Youngman's home, Sunnyvale (Note location change) 408-685-0826
Board and Planning Meetings are open to all SPAUG members

SIGS

<u>NOTE:</u> 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

### Without-Whoms

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Please help us.

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Publicity

### SPAUG Online

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



hosted by 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:

### 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.

#### **◄** (Continued from page 7)

cient. Using the solenoids, control was greatly simplified. Suddenly an artificial heart was feasible, because of the computer chips that had become available.

After Army, to UC San Francisco in anesthesia, and Stanford for Heart Surgery. Supervised medical equipment and Computer Science for medical school.

Talked about Digital Equipment Company being at one time the biggest computer company; but then personal computers came along and displaced mainframes. Cheaper tech replaces more expensive tech.

His first mail was under a DARPA contract Medical records. A 30-megabyte disk from HP cost \$30,000 - that was at cost, not sales markup price. One of the first Altair computers was bought and featured in the Homebrew Computer Club.

Trends are not visible until they have progressed quite a way. At the time they are gathering steam, there is no indication that a trend is about to take off and go exponential. There have been numerous examples of this.

### At the close of his presentation, Allen Ream discussed Genealogy

• FamilySearch program. Allen showed several charts with about 900 names on it showing his family tree. It has probably the world's largest database. Anyone can use some of the features, but LDS Church members can use more advanced features.

**Ancestral Quest** free and paid programs. He discussed how to find ancestors.

**Legacy 8.0** is another useful program.

- Be sure to always enter all sources of information. Also any doubts or guesses about the reliability of information.
- The Santa Clara Family History Center houses a large collection of books, microfilm, and microfiche with a friendly and knowledgeable staff.
- There are meetings the 2nd Saturday of the month in Santa Clara at 9 am for 2 hours at the LDS (Mormon) Church, 875 Quince Ave, Santa Clara, CA 95051 (408) 241-1449. Call to confirm location and dates. All kinds of information is available.
- There is also a Silicon Valley Genealogy Group that can help with research. Christie Bilikam will have the URL and newsletter.

**◄** (Continued from page 10)

## A Surprise on the SPAUG Website by John Buck

Back in the days when the WebSIG met at Stan Hitchings' home and worked on the SPAUG website, I (and, I think, we) learned a lot by studying the data available to us from our then-host, MontereyNet. The thing I most strongly remember was learning sbout a thing called a favicon. The result was that I created the SPAUG favicon.

After we switched to SVPAL as our website host, we didn't seem to have the same sort of rich trove of data available, and I lamented that.

Recently, while a friend and I were exploring the SPAUG website, I went to the "Next Meeting" page—http://www.pa-spaug.org/meeting.php—and found a counter.

- Clicking on the "COUNTER" button took me to a page where I could sign up for a counter on my website. Not very useful to me, but interesting to scroll down the page and see the counter styles available.
- Clicking on "STATS" provided access to info I didn't know was currently available on our site, but not as much as info as we got from MontereyNet. As an example of the data currently available, the display of hits per month this year—

  http://preview.tinyurl.com/ldlxlbj—our maximum was 28 in February, declining to 9 in May, then rising again to 24 in August (as of August 30, 2014).

## The Windows Maintenance Challenge: Part 2 contributed by Richard Brooks

John,

I bet that SPAUG members would like to know about Fred Langa's "Windows Maintenance Challenge" described in Issue 446 of the Windows Secrets Newsletter (2014-08-28). He documented the Windows scanner / fixer program Reimage and found it to be fraudulent (my word). He also tested other some other Windows commercial scanner / fixers.

Richard

Thank You, Richard.

Richard provided a copy of the whole article in his email. It's way too long to print or try to summarize in Print Screen, so here's the intro—

**◄** (Continued from page 11)

### The Windows Maintenance Challenge: Part 2

By Fred Langa

#### Can commercial, third-party maintenance software outperform Windows' built-in, free tools?

This is the conclusion of a two-part series that will help you determine which PC maintenance tools — free or paid — yield the best results on *your specific* system

I (jb) tried finding a link to the article online, but the http://windowssecrets.com site was not accessible when I tried (Fri 8/29/14, 1230 pm).

Here's the grearch for the article [The Windows Maintenance Challenge: Part 2] —http://preview.tinyurl.com/kzgmwr3

## Filler by John Buck

### 15 SIMPLE, SECRET WINDOWS TIPS AND TRICKS DESIGNED TO SAVE YOU TIME

- "Hidden powers and secret timesavers"
- -www.pcworld.com
- —http://preview.tinyurl.com/ob3mxrj

### BEST WINDOWS PROCESS CHECKERS THAT TELL YOU IF A PROCESS IS SAFE

"It is rather surprising that only a handful of task manager alternatives offer security scans. Even more problematic than that is the fact that many rely on internal rating systems only which often fail to provide ratings for all processes running on the system.

This leaves Process Explorer as the main recommendation. While it is a bit high on the memory side of things, it is portable and its integration of Virustotal is the one that makes most sense as results are displayed internally in the program interface."

- -www.ghacks.net
- —http://preview.tinyurl.com/ot6yzxs

**◄** (Continued from page 12)

### MICROSOFT PRUNES DECEIVING APPS FROM WINDOWS STORE, VLC CAUGHT IN CROSSFIRE

"Microsoft has started to remove deceiving apps from Windows Store. This is a good thing even though it has not been thorough enough in several cases. Leaving the paid unofficial VLC app in store is a blunder. It can happen, but employees reviewing store apps all day long should know the difference, especially since it is one of the high profile apps available in store."

- -www.ghacks.net
- -http://preview.tinyurl.com/kk74mgh

### CONTROL EXTERNAL DEVICE ACCESS RIGHTS ON WINDOWS PCS

"Considering that malicious software could spread through the use of these devices, it may be a good idea to limit access rights to read operations only or disable connections of specific device types altogether. While there are many programs out there for Windows that help you do so, many lack proper protection against manipulation of settings. Removable Access Tool (Ratool) is a portable program for the Windows operating system that provides you with controls to manage the access rights of external devices."

- -http://www.ghacks.net/
- —http://preview.tinyurl.com/mdlxq3l

#### GLASSWIRE HELPS YOU MONITOR YOUR COMPUTER'S INTERNET ACTIVITY

"GlassWire is not a replacement for a security software, but it is not advertised as such. Instead, it is a companion app for security software on a computer system. Its main appeal comes from the fact that it makes things easy to understand so that you can react by blocking its access to the Internet from within the application or another firewall."

- -www.ghacks.net
- —http://preview.tinyurl.com/pa8r4xx

### BEST FREE WINDOWS EXPLORER ADD-ONS—UPDATED 4. JULY 2014

"Strictly speaking, an Explorer add-on is any program that enhances the taskbar, start menu, desktop, context menu, toolbars, file management system or any other aspect of Windows involving explorer.exe. However, this article will focus mainly on add-ons to the file management system, especially add-ons that help users access their file system. Thus, it will generally exclude Program Launchers and Right-Click Context Menu Extensions, although there is some overlap. . . . Also, be aware that [the list is XP oriented, and] Windows 7 makes significant changes to Explorer that may break many features of the programs reviewed here.

—http://www.techsupportalert.com/best-free-windows-explorer-addons.htm

**◄** (Continued from page 13)

#### SOURCEFORGE NEWSLETTER

Sourceforge [SF] is a site for freeware/shareware programs you may have heard about via SPAUG, and/or may already be using.

Stan Hutchings shared (on 8/2/14) info about the Sourceforge Newsletter that he subscribes to. It appears that registration is required if you want to receive it, however there seems to be considerable info on the SF home page. SF has an rss feed, and a "Resources" link to Slashdotmedia.

- —http://sourceforge.net/
- -http://library.slashdotmedia.com/

### NHTSA LAUNCHES ONLINE SEARCH TOOL SO CONSUMERS CAN FIND OUT FOR THEMSELVES IF A VEHICLE HAS BEEN RECALLED

"A new online search tool from the National Highway Traffic Safety Administration aims to take the worry and guess-work out of whether or not a used car has been recalled and fixed. . . . To use the new search tool, consumers must input the vehicle's 17-digit VIN, which can usually be found in the left corner where the dashboard meets the windshield or on insurance and registration documents. Results will then appear if the consumer has an open recall on their vehicle, and if there are none, owners will see "No Open Recalls."

- -consumerist.com
- -http://preview.tinyurl.com/osggjyo

### GENE BARLOW'S NEWSLETTER

If you already receive Gene Barlow's newsletter via email, you can probably ignore the rest of this item.

On 8/2/14, Stan Hutchings forwarded to me a copy of Gene Barlow's May 2014 newsletter, which has info related to the demise of MS' XP support and what Acronis products are needed for Windows 7.

- —Gene Barlow's User Group Relations website—http://www.ugr.com/
- —Newsletter subscription—http://www.ugr.com/NewsletterRegistration.html

### A ROOM WHERE EXECUTIVES GO TO GET HELP FROM IBM'S WATSON

- "Researchers at IBM are testing a version of Watson designed to listen and contribute to business meetings."
- -www.technologyreview.com
- -http://preview.tinyurl.com/kgdl88k

**◄** (Continued from page 14)

### HOW LONG DO CDS LAST? IT DEPENDS, BUT DEFINITELY NOT FOREVER

"Many institutions have their archives stored on CDs — but the discs aren't as stable as once thought. There is no average life span for a CD, says preservationist Michele Youket, "because there is no average disc.""

- -www.npr.org
- -http://preview.tinyurl.com/m6tkba8

## CHROME'S AWESOME SCREENSHOT EXTENSION TURNS SPYWARE, HERE ARE ALTERNATIVES

[If you use any app or extension anywhere, I think you should read the ghacks article from which this is taken.— jb]

"When extension developers want to make money from their popular extensions, they have only a few options to do so. They can ask for donations, offer a paid version, integrate a third-party monetization module in the app, or sell it to the highest bidder. The last two options usually come with some form of user tracking that companies add to the extension to create profiles for use in advertisement or to sell the data to other companies.

When webmasters noticed hits to specific pages by bots, pages that bots normally don't access because they are not public and many require authentication to be accessed, they started to investigate the matter. It turned out, that the Chrome extension Awesome Screenshot fed the bot, named niki-bot, urls taken from the user's browsing history.

Conclusion: It is highly recommended to uninstall Awesome Screenshot, at least for the time being until the situation is sorted out. In the meantime, check out the following alternatives instead which offer a similar feature set."

- -www.ghacks.net
- -http://preview.tinyurl.com/o87nf3q

### HELP SCIENCE IDENTIFY A KAJILLION ASTRONAUT PHOTOS OF CITIES

""Night Cities" is an ambitious project to create an atlas of urban space photography. Want to do a small part to help world science, or just pretend you're an astronaut (wheee!) zooming above Earth at 17,500 mph? Then pound some Tang and head on over to "Cities at Night," an ambitious crowdsourcing effort to sift through an immense mountain of photos shot from space."

- -www.citylab.com
- —http://preview.tinyurl.com/mugwts3

**◄** (Continued from page 15)

### MAKING BETTER DIGITAL MAPS IN AN ERA OF STANDARDIZATION

"Many cartographers are developing digital, open-source tools that look back to a predigital era to make maps that are uniquely designed to a particular purpose. Here are three who are leading in the charge against cartographic standardization and toward beautiful, functional maps."

- -www.citylab.com
- —http://preview.tinyurl.com/pvnh8p9

## NEW CYBERSECURITY TOOL LETS US PREDICT WEBSITE HACKS BEFORE THEY HAPPEN

"Building on cutting edge machine-learning and data-mining techniques, a pair of Carnegie Mellon University researchers have built a new tool designed to accurately predict which Web servers will be hacked before any hacking actually takes place.

The algorithm is designed to automatically detect whether a Web server is likely to become malicious in the future by analyzing a wide array of the site's characteristics: For example, what software does the server run? What keywords are present? How are the Web pages structured? If your website has a whole lot in common with another website that ended up hacked, the classifier will predict a gloomy future."

- -http://www.dailydot.com
- —http://preview.tinyurl.com/n9flmrl

### GOOGLE'S 10 ZANIEST PROJECTS IN THE 10 YEARS SINCE THE IPO

"[On August 19, 2004] Google Inc. went public in an offering that raised nearly \$1.7 billion and valued the young Internet company at around \$27 billion. The Mountain View, Calif., startup quickly put that money to work, transforming itself into much more than an online search company.

By the end of 2004, it had acquired the companies that would form Google Maps and Google Earth. It was already pushing beyond the confines of the Internet, scanning physical books to make them searchable, too. And the company launched Google.org, which, among many other projects, would seek to develop ultra-efficient vehicles, confront global poverty and analyze data to predict real-world events like flu outbreaks."

—http://recode.net/2014/08/19/googles-10-zaniest-projects-in-the-last-10-years/

(Continued on page 17) ▶

**◄** (Continued from page 16)

### THE STATE OF ANDROID UPDATES: WHO'S FAST, WHO'S SLOW, AND WHY

"For every Android update, Google's release of code to OEMs starts an industry-wide race to get the new enhancements out to customers. So how did everyone do this year? Who was the first with KitKat, and who was the last? What effect does your carrier have on updates? How has the speed of Android updates changed compared to earlier years?"

- -arstechnica.com
- —http://preview.tinyurl.com/pmjpstm

## THE ARMY'S 3D-PRINTED FOOD WILL GIVE SOLDIERS PERSONALIZED MEALS

"Three-dimensional printing is changing the way the Army treats injuries and builds bombs, and now the technology is poised to revolutionize how soldiers are fed. 3D printing will allow the Army to print food on demand, from pasta to pizza, and tailor its nutritional content to an individual soldier's needs."

- -motherboard.vice.com
- -http://preview.tinyurl.com/nmm9ac8

### THE NEVER-ENDING CONUNDRUMS OF CLASSICAL PHYSICS

"Even today, scientists still try to solve sprinkler brain teasers from the 19th century."

- —arstechnica.com/science/
- —http://preview.tinyurl.com/meo9nnn

## HACKING INTO TRAFFIC LIGHTS WITH A PLAIN OLD LAPTOP IS SCARY SIMPLE

"A team led by computer scientist J. Alex Halderman recently conducted a study on the security of traffic lights in an unnamed Michigan town and found them to be ridiculously easy to hack. Three major weaknesses—unencrypted wireless connections, the use of default usernames and passwords, and vulnerable dubugging ports—meant that the researchers were able to take control over the lights with a normal laptop. As long as the wireless card in the hacker's computer can communicate at the same frequency that the traffic lights use, it can break into the wireless network that powers the entire system."

—http://gizmodo.com/hacking-into-traffic-lights-with-a-plain-old-laptop-is-1624102517

### WHY WE STILL HAVE BEZELS (BUT MAY NOT FOR LONG)

"As bezels shrink, companies have struggled to create solutions built into your phone's OS that can recognize the difference between you gripping the edge of your iPad while you're reading and, say, you trying to turn a page. A good example of this dilemma is

**◄** (Continued from page 17)

the multitude of patents Apple has filed related to the issue, approaching it from several different directions. In some cases, the company imagines the edge of the device as a secondary interface that can control things like volume, power, and navigation, as in this 2011 patent for a series of force sensors in the corners of your device:"

—http://gizmodo.com/why-we-still-have-bezels-but-may-not-for-long-1624076474

#### INSIDE THE MILITARY'S SECRETIVE SMARTPHONE PROGRAM

"DARPA does a lot more than build weapons, however. The same government agency that invented the internet and laid the groundwork for America's thriving startup culture is now trying to act more like a startup itself. Put simply, DARPA is making smartphones battlefield-ready, so that soldiers can take full advantage of the same mobile technology that's improved the lives of countless civilians in recent years."

—http://gizmodo.com/inside-the-militarys-secretive-smartphone-program-1603143142

#### WHY YOU ALWAYS SEEM TO CHOOSE THE SLOWEST LINE

"Queueing theory has grown to more than just math, incorporating these psychological aspects to waiting in line. The reason that elevator lobbies often have floor-to-ceiling mirrors is that they help alleviate the boredom of waiting for the next lift. Lines at an amusement park like Disneyland incorporate all sorts of diversions—like changing backgrounds, progression through different rooms, and video screens—to keep parkgoers preoccupied and feeling like they are making progress toward a goal while standing for two hours to get on a five-minute ride. Smart phones are probably the greatest boon to modern line designers. Pretty much anyone can now kill time by playing games, checking social media, or browsing the internet while waiting."
—http://www.wired.com/2014/07/whats-up-with-the-other-line-is-always-faster/

### HOW FIVE OF THE WORLD'S COOLEST NEW BRIDGES STAY UPRIGHT

"In some ways, bridge design is far more experimental than any other. The race to build further, faster, for less is still driving incredible innovations in the field, just like it did at the dawn of the suspension bridge in the 19th century. Below, take a look at five of the nominees for the highway and railway bridge category and the designs that help them defy gravity."

- -http://gizmodo.com
- -http://preview.tinyurl.com/pa2kx89

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#### STRIP THE CITY

Peeling a City Apart to Show How Structures Survive Disasters

Science Channel: Strip The City

- Dubai
- The Secret of Manhattan's Skyline
- The Mystery of Earthquake-Resistant Buildings at Machu Picchu
- The Golden Gate Bridge
- This Underground Danger Could Bring Paris to Collapse
- Mapping The San Andreas Fault
- Engineering Across the River Thames
- -http://www.metafilter.com/141616/Strip-The-City

### BEHOLD! THE MOST INSANE CROWDFUNDING CAMPAIGN EVER

"This is only a cursory assessment of this project, [Silent Power—a remarkably small and fairly powerful miniature gaming computer being put together by a team in Germany] and far from a complete look at the failings of the Silent Power PC. There's much, much more to talk about here but really only one word that can describe the totality of this project: insane."

- -http://hackaday.com
- -http://preview.tinyurl.com/no9k8yl

#### 8 Online Resources for Historical Research

"The beauty of doing historical research in the Digital Age is that so much can be carried out from the comfort of your couch, local coffee shop or anywhere with reasonably speedy Wi-Fi. Of course, there's much to be said for libraries, museums and a trip to your novel's locale, but because so much can be accomplished from home that the Internet should be your first stop. Here are eight tools to get you up and running."

- -www.writersdigest.com
- -http://preview.tinyurl.com/poofh5s

#### HOW WEBSITES ARE EXPERIMENTING ON YOU

"The internet is one big experiment, and you're part of it. Every day, millions of trials are manipulating what you see when you browse online, to find out how to keep your attention, make you click more links – and spend more money. And these experiments are often secret. You'll probably never know you were part of them."

—http://www.bbc.com/future/story/20140801-hidden-tricks-that-make-you-click

**◄** (Continued from page 19)

## THIS AMAZING JET WILL TRANSPORT EBOLA VICTIMS FROM AFRICA TO THE U.S

"How do you pack two patients that are infected with one of the world's deadliest viruses into a pressurized aluminum tube that is filled with healthy care takers and pilots for 12 hours and not get almost everyone infected in the process? You use this old ex-Royal Danish Air Force Gulfstream III that is highly modified to convey very ill people over very long distances."

- -foxtrotalpha.jalopnik.com
- -http://preview.tinyurl.com/ls77le8

### THE MYSTERY OF HUMOUR: CARLETON UNIVERSITY SCIENTIST INVESTIGATES WHY WE FIND THINGS FUNNY

"When we encounter ideas, we have our habits and old-brain processes weighing in on the quality of those ideas," he writes. "Our old brain (to personify it) has opinions and biases and, when it speaks up, our knowledge of its biases can help us evaluate the quality of its opinion. Does my old brain like this idea simply because a beautiful woman is telling it to me, or because it's written beautifully, or because I'm being exposed to an anecdote framed in the form of a compelling story? Or maybe all at once?"

- -news.nationalpost.com
- -http://preview.tinyurl.com/k2k8d83

## GREAT COLLECTION OF ARTICLES AND AIDS FOR UNDERSTANDING AND EXPLAINING TECHNOLOGY

"If you are an educator or someone who frequently explains technology to others, here is a resource that is a real find. It is a website called Educational Technology and Mobile Learning."

- -www.techsupportalert.com
- -http://preview.tinyurl.com/keh9392

### WHEN GOOD WAVES GO ROGUE

"The science of rogue waves began to take shape in the early 1960s, not in the ocean but in a wave tank—essentially a long, shallow trough with a "paddle" for generating waves of varying frequencies—in Cambridge University's Engineering Department. There, the physicist and fluid dynamics expert T. Brooke Benjamin, aided by a graduate student named Jim Feir, were having trouble trying to prove something that had long been assumed: the stability of the so-called "Stokes wave," the sort of Ur-wave, or prototypical, wave of fluid dynamics, theorized by the renowned 19th-century Cambridge University mathematician George Gabriel Stokes. Stokes, inspired by a British engineer's faintly astonished report of a "solitary heap of water," pushed along by a

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slowing boat, that had maintained its speed and shape for nearly two miles as it traveled through a canal, looked for an equation that could describe a wave propagating in shallow water without changing shape."

—http://nautil.us/issue/15/turbulence/when-good-waves-go-rogue

### 'SEE-THROUGH' BODIES TECHNIQUE DEVELOPED

"A way to turn an entire body transparent has been developed by scientists studying rodents. Reporting in the journal Cell, they describe a technique that keeps tissues intact but allows key body parts and connections to be seen. They say it could help visualise how separate organs interact and pave the way for a new generation of treatments.

-http://www.bbc.com/news/health-28582452

#### GRAPHICAL VIEWS OF ARTIFICIAL NEURAL NETWORKS

"Two approachable visual presentations of simple neural networks: one showing how a soft activation function allows the successive layers of a neural network to distort the input until the different classes are separable, and the other showing how a hard step activation function can be represented as carving out polygons in the space of inputs. Don't be intimidated by the rather condensed summaries above- the actual articles are very readable."

—http://www.metafilter.com/141549/Graphical-views-of-artificial-neural-networks

### WHY DO WE SEE FACES IN EVERYDAY OBJECTS?

"Pareidolia, as this experience is known, is by no means a recent phenomenon. Leonardo da Vinci described seeing characters in natural markings on stone walls, which he believed could help inspire his artworks. In the 1950s, the Bank of Canada had to withdraw a series of banknotes because a grinning devil leapt from the random curls of the Queen's hair (although I can't, for the life of me, see the merest hint of a horn in Her Majesty's locks). The Viking I spacecraft, meanwhile, appeared to photograph a carved face in the rocky landscape of Mars."

—http://www.bbc.com/future/story/20140730-why-do-we-see-faces-in-objects

### MY NEW HDTV MAKES MOVIES LOOK UNNATURALLY SMOOTH

"This annoying little phenomenon is commonly referred to as the "soap opera effect," and it's a byproduct of your TV's motion-enhancing features. Thankfully, the effect can be turned off, and that's probably a good idea when you're watching movies. While these smoothing features can make a few things look better—scrolling tickers, sports, and HDTV test discs, for example—our eyes and brains expect something very different when we're watching movies. A slower frame rate is one of them."

—http://www.wired.com/2014/08/wtf-just-happened-soap-opera-effect/

**◄** (Continued from page 21)

### COAST RADIO STATIONS KPH AND KSM

"As True Believers in the importance of our maritime radio heritage we have tried to research and document every aspect of the field. Our area of specialization is the coast stations, ships and companies of the west coast of the United States. But anything to do with maritime radio anywhere in the world is of interest to us."

- —http://www.radiomarine.org/
- —http://www.nps.gov/pore/planyourvisit/events\_nightofnights.htm
- —http://www.radiomarine.org/gallery/show?keyword=ksmstation
- —gsearch http://preview.tinyurl.com/ms4yecp

## RESEARCHERS LED BY STANFORD ENGINEER FIGURE OUT HOW TO MAKE MORE EFFICIENT FUEL CELLS

"Using high-brilliance X-rays, researchers track the process that fuel cells use to produce electricity, knowledge that will help make large-scale alternative energy power systems more practical and reliable."

—http://news.stanford.edu/news/2014/july/ions-fuel-cells-070914.html

### STANFORD RESEARCHERS SEEK 'HOLY GRAIL' IN BATTERY DESIGN

"Pure lithium anode closer to reality with development of protective layer of interconnected carbon domes."

—http://news.stanford.edu/news/2014/july/pure-lithium-battery-072914.html

### HUMMINGBIRDS VS. HELICOPTERS: STANFORD ENGINEERS COMPARE FLIGHT DYNAMICS

"A quantitative analysis of hummingbird wings shows that they generate lift more efficiently than the best micro-helicopter blades. The findings could lead to more powerful, bird-inspired robotic vehicles."

-http://news.stanford.edu/news/2014/july/birds-versus-bots-073014.html

## STANFORD STUDY FINDS ORDER IN THE APPARENT RANDOMNESS OF EARTH'S EVOLVING LANDSCAPE

"Stanford Earth scientists use newly developed mathematical tools to analyze landscapes formed by water and other processes, and in doing so challenge 50 years of research on landscape evolution. The new techniques allow scientists to better understand the signatures of erosion on Earth and perhaps on other planets."

—http://news.stanford.edu/pr/2014/pr-channel-network-geometry-071114.html

**◄** (Continued from page 22)

## STANFORD'S WATER IN THE WEST PROGRAM OFFERS NEW WAY TO VIEW GROUNDWATER RESOURCES

"New website, with interactive graphics, illustrates problems caused by California's over-tapped aquifers."

—http://news.stanford.edu/news/2014/july/groundwater-lane-woods-073114.html

## GEGEEK TECH TOOLKIT IS A PORTABLE SOFTWARE COLLECTION FOR WINDOWS

"GEGeek Tech Toolkit is a comprehensive collection of programs and reference documents for users of all experience levels, but especially for technicians and users who fix Windows issues regularly. The fact that it is possible to update the collection to keep all tools up to date makes it one of the most powerful, if not the most powerful, downloadable tools collection for Windows. You may also like the fact that it is easy to add your own portable programs to the collection, and with some knowledge of batch files, add it to Ketarin as well so that these tools can also be updated automatically. If you need a tech toolkit for Windows, this is it."

- -www.ghacks.net
- -http://preview.tinyurl.com/ptoqmyb

#### WATCH THIS WIRELESS HACK POP A CAR'S LOCKS IN MINUTES

"Cesare's hack uses a tool known as a software-defined radio, a device that can digitally emit or pick up a wide band of frequencies from FM to bluetooth to Wi-fi. With that super-versatile transmitter attached to his laptop, along with a cheap antenna and amplifier, he was able to transmit the same frequency as the key fob. He then used that frequency to perform a "brute force" attack—cycling through thousands of code guesses at a rate of two to three a second until he found the one that successfully unlocked the car. In the video below, he shows the trick working in just minutes."
—http://www.wired.com/2014/08/wireless-car-hack/

#### HOW HACKERS COULD SLAM ON YOUR CAR'S BRAKES

"Modern cars are increasingly controlled by computers. And where there are computers, there are hackers."

- —http://money.cnn.com/2014/08/01/technology/security/most-hackable-cars/
- —gsearch http://preview.tinyurl.com/pznae5b

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## HACKERS CAN CONTROL YOUR PHONE USING A TOOL THAT'S ALREADY BUILT INTO IT

"The attacks would require proximity to the phones, using a rogue base station or femtocell, and a high level of skill to pull off. But it took Mathew Solnik and Marc Blanchou, two research consultants with Accuvant Labs, just a few months to discover the vulnerabilities and exploit them."

- -www.wired.com
- -http://preview.tinyurl.com/qhglkas

### WINDOWS 7 STARTUP

"This article is written for Windows users who want to know what is happening during Windows startup. My goal is to make Windows startup more easily understood by the average user. So I have provided a lot of basic information for those of you who aren't familiar with Windows terminology. This article will be most useful to advanced users because it provides detailed startup sequences and examples. This could be helpful if you are trying to troubleshoot Windows startup problems so I have included some pointers for where to look for particular problems."

- -www.techsupportalert.com
- -http://preview.tinyurl.com/m4625cn

### AS ANIMALS MINGLE, A BAFFLING GENETIC BARRIER

- "A short stretch of DNA is challenging what it means to be a species."
- -www.simonsfoundation.org
- —http://preview.tinyurl.com/nnukynz

## HOW A SIMPLE SPAMBOT BECAME THE SECOND MOST POWERFUL MEMBER OF AN ITALIAN SOCIAL NETWORK

"The surprising story of how an experiment to automate the creation of popularity and influence became successful beyond all expectation."

- -www.technologyreview.com
- —http://preview.tinyurl.com/ofwr9cj

#### WHAT IF GOOGLE WAS AN INTELLIGENCE AGENCY?

"But really, how would a company like Google compare to an intelligence agency like the NSA? How would it be able to gain access to confidential information and go beyond OSINT (Open Source Intelligence)? Does Google even have the resources, data and technical capabilities to harvest all-sources intelligence like a major intelligence service would?"

—http://electrospaces.blogspot.com/2014/08/what-if-google-was-intelligence-agency.html

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### IN FIGHT WITH HACKERS, WE ARE ON OUR OWN

"The web, as Roger Rawlinson, a group managing director at NCC Group, which owns the security consulting firm iSEC, points out, was not built to secure information, it was built to share it. We're now trying to bolt on security after the fact, and hackers are outpacing those efforts."

—http://bits.blogs.nytimes.com/2014/08/07/in-fight-with-hackers-we-are-on-our-own/

### BEST FREE DRIVE BACKUP PROGRAMS FOR WINDOWS

"Different types of backup tools are available, from Windows' native System Restore or File History feature over single-file or folder backup programs to applications that back up disks or partitions. This top list looks at the latter kind to provide you with a selection of programs that you can use for that purpose. As always, I start by listing the requirements for inclusion.

- 1. A free version needs to be provided.
- 2. The backup program needs to support full partition and disk backups.
- 3. A version for Windows needs to be provided.

Recommendations are based on needs. If you want the program with the smallest backup size, then Acronis True Image may be the logical choice even though it only supports full backups.

As far as features are concerned, the crown is shared by Paragon's Backup & Recovery, AOMEI's Backupper and Comodo's Backup Free as they support features such as encryption or different backup types that not all free imaging solutions support.

Especially support for differential or incremental backups makes a difference here as you won't require as much storage as with a program supporting only full backups."

—http://www.ghacks.net/2014/08/08/best-free-drive-backup-programs-for-windows/

## STICKY DATA: WHY EVEN 'ANONYMIZED' INFORMATION CAN STILL IDENTIFY YOU

"University of Colorado Law School associate professor Paul Ohm's 2009 paper on the topic made the bold claim that "data can be either useful or perfectly anonymous but never both." To prove his point, Ohm cited three well-known data sets that had supposedly been de-identified – a set of AOL search queries, a Netflix viewing habits data study and a data set of ZIP codes, gender and birth date. In each case, when researchers correlated the data with another data set, they found that some identities could still be revealed."

- -www.theglobeandmail.com
- -http://preview.tinyurl.com/pszndkb

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### THE FALL OF THE FBI'S MOST-WANTED CYBERCRIMINAL

"For the FBI, not even the most technically adept member of Anonymous can stay anonymous forever." . . . Under the banner of the faceless hacker collective Anonymous, the two had close been cohorts for the past eight months. Sabu usually picked the targets—namely foreign government sites like that of the Brazilian military police—while Hammond, a longstanding political activist, did the heavy lifting. It's not that he didn't trust his partner, but Hammond, a veteran hacker at 27, took precautions. He only talked with Sabu over encrypted chat, and while they spoke multiple times a day, he never gave his actual name and made only oblique references to his personal life."

- -kernelmag.dailydot.com
- -http://preview.tinyurl.com/p9gb7cq

### HIDDEN PATTERNS AND THE STRAIGHT-LINED CIRCLE ILLUSION

"The circular motion in this video is not what it seems... Just another example of hidden patterns in plain sight!"

—http://twistedsifter.com/videos/the-straight-lined-circle-illusion/

### AT BLETCHLEY PARK, A REMINDER ABOUT THE HISTORY OF CRACKING CODES

"Bletchley Park, once Britain's highly classified government center for code breaking during World War II, now invites curious guests who want to poke around and learn its secrets. A recent \$13.5 million restoration project has resurrected the once-crumbling collection of buildings and returned the complex to its wartime state — except now it has plenty of informative exhibits that explain the code-breaking process and how math and science helped beat the Nazis."

- -bits.blogs.nytimes.com
- -http://preview.tinyurl.com/kpkb24o

#### INSIDE THE MORTUARY WITH THE UK'S LEADING FORENSIC SCIENTISTS

- "The pioneering work done by Professor Sue Black's team at the University of Dundee leads the field."
- -http://www.ft.com
- —http://preview.tinyurl.com/nfjcrzo

## SAN FRANCISCO-BASED DESIGNER CAMERON DRAKE CREATED THIS AMAZING SERIES OF ANATOMICAL GIFS.

—http://boingboing.net/2014/08/09/the-x-ray-gifs-of-cameron-drak.html

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#### HYPERLAPSE

"There's barely a mountain biker, climber, skydiver or skier left who doesn't have a Go-Pro camera attached to his helmet. Nobody really wants to sit through an hour of video of you heading up and down the slopes, however. You could just speed those videos up, but then they become completely unwatchable. Thanks to a new Microsoft Research project, however, you may soon be able to turn those long boring first-person videos into really smooth hyperlapse sequences that run at 10x the speed of the original video but don't make you want to throw up because of the camera shake."

- —techcrunch.com
- —http://preview.tinyurl.com/ngrpd2w
- -http://preview.tinyurl.com/leavske

"We present a method for converting first-person videos, for example, captured with a helmet camera during activities such as rock climbing or bicycling, into hyper-lapse videos, i.e., time-lapse videos with a smoothly moving camera."

—http://research.microsoft.com/en-us/um/redmond/projects/hyperlapse/

"Hyper-lapse photography – a technique combining time-lapse and sweeping camera movements typically focused on a point-of-interest – has been a growing trend on video sites."

-http://labs.teehanlax.com/project/hyperlapse

### THE 17 EQUATIONS THAT CHANGED THE COURSE OF HISTORY

"In 2013, mathematician and science author Ian Stewart published a book on 17 Equations That Changed The World. We recently came across this convenient table on Dr. Paul Coxon's twitter account by mathematics tutor and blogger Larry Phillips that summarizes the equations."

- —http://www.businessinsider.com/17-equations-that-changed-the-world-2014-3
- —gsearch http://preview.tinyurl.com/mdrcgoo
- —http://www.metafilter.com/141814/Math-and-equations-are-fun

## MODIFY THE WINDOWS TASKBAR TO SHOW ICONS FOR EACH PROGRAM INSTANCE INDIVIDUALLY

"If you prefer that each folder and program is displayed individually on the taskbar so that you can access it right away without having to hover over an icon stack, but don't like the labels attached next to each individual representation, then this helps you achieve that goal."

- -www.ghacks.net
- -http://preview.tinyurl.com/llzbnft

**◄** (Continued from page 27)

### SCAMMERS CALL RESTAURANTS AT PEAK HOURS, DEMANDING THEY PAY POWER BILL NOW OR LOSE SERVICE

"In general, you should not provide payment information to anyone who contacts you. Even if they have accurate information about your account, that information could be stolen. You should always get a call back number — and verify with your bills and any other available info that the number actually belongs to the company — then call back and settle the bill safely."

- -consumerist.com
- -http://preview.tinyurl.com/lz2j2hr

## BY CRACKING CELLPHONE CODE, NSA HAS ABILITY TO DECODE PRIVATE CONVERSATIONS

"U.S. law prohibits the NSA from collecting the content of conversations between Americans without a court order. But experts say that if the NSA has developed the capacity to easily decode encrypted cellphone conversations, then other nations likely can do the same through their own intelligence services, potentially to Americans' calls, as well."

- -www.washingtonpost.com
- —http://preview.tinyurl.com/pudkkua

## COMPUTER HISTORY MUSEUM LAUNCHES NEW EXHIBIT ON THE HISTORY OF AUTONOMOUS VEHICLES

""Where To? A History of Autonomous Vehicles" [...] will remain on exhibit **through the end of November**.... In this timely new exhibit, visitors will learn about the history of autonomous vehicles, enjoy science fiction and popular culture dreams of the driverless family car, get up close with the Google self-driving car, and learn how this amazing technology works."

- —http://www.computerhistory.org/press/where-to-exhibit.html
- —http://www.computerhistory.org/atchm/where-to-a-history-of-autonomous-vehicles/

### WANNA BUILD YOUR OWN GOOGLE? VISIT THE APP STORE FOR ALGORITHMS

"The idea is to give algorithm creators the chance to have their work used in the real-world, and get paid for it, while making it easier for companies that don't have the resources of Microsoft or Google to tap into the world of algorithm development and find the best solutions to their problems."

-http://www.wired.com/2014/08/algorithmia/

**◄** (Continued from page 28)

## A FASCINATING LOOK INSIDE THOSE 1.1 MILLION OPEN-INTERNET COMMENTS

"So what's in those nearly 1.1 million public comments? A lot of mentions of the F word, according to a TechCrunch analysis. But now, we have a fuller picture. The San Francisco data analysis firm Quid looked beyond keywords to find the sentiment and arguments in those public comments."

- -www.npr.org
- -http://preview.tinyurl.com/lgh66ua

## WHY YOU MIGHT NOT BE ABLE TO FLY EVEN IF YOUR PASSPORT DOESN'T EXPIRE FOR MONTHS

[Not technology, but possibly worth knowing. I bet technology is involved somewhere in this.] — "The problem is that some foreign countries do exactly what the United States itself does, explains ABC News, and require all visitors to have more than six months of validity remaining on their passports before entering the country on the typical three-month time limit for tourists."

- -consumerist.com
- -http://preview.tinyurl.com/ljvsymg

#### THE BEST FREE DESKTOP SEARCH PROGRAMS FOR WINDOWS

I (jb) counted eleven programs in this list. I've been happily using and recommending the program named Everything. Here's Martin Brinkmann's Recommendation: "Recommendations depend on your requirements more than anything else. If you want a fast program that finds files really fast, then you may want to try Everything first. While it does index files, its database is not as large as that of other programs." Also, read the comments. BTW, I (jb) also use and recommend the file manager programs 2xExplorer and

xyplorer for their search capabilities.

- -www.ghacks.net
- —http://preview.tinyurl.com/q3zprhm

## THERE'S REALLY NO WAY TWITTER CAN STOP SOME USERS FROM BEING HTTP://PREVIEW.TINYURL.COM/LN9XYXK

"As things stand now, there is little that Twitter or its users can do to proactively avoid or block jerks. You can make your account private, limiting access to your feed to only approved members, but that doesn't stop people from posting horrible things directed at you. At best, you can occasionally suss out a creep, troll, etc., early before it has become a nuisance and block, ignore or report that account. But that's the rub — it's all reactive, just like most of the real world."

—http://preview.tinyurl.com/lajb5fp

**◄** (Continued from page 29)

### 10 Programs that Microsoft should integrate into Windows 9

"Microsoft has not revealed a lot about its upcoming operating system Windows 9 but from the tidbits the company has released and rumors it appears as if it will be closer to Windows 7 than it is to Windows 8 interface-wise on the desktop. Since this is somewhat of a restart, Microsoft could use it to integrate programs into Windows 9 that improve the operating system considerable for desktop users."

- -www.ghacks.net
- -http://preview.tinyurl.com/lon5e9a

## FACEBOOK'S QUEST TO BUILD AN ARTIFICIAL BRAIN DEPENDS ON THIS GUY

"LeCun's work extends well beyond neural nets. In the late '90s, he had a hand in building a seminal image compression system. The idea was to scan documents and then put these up on the web for all to see. The technology never quite panned out for LeCun, but the concepts behind the technology impressed a young Larry Page, the cofounder of Google, who heard a talk LeCun gave at Stanford in 1998 when he was still a graduate student. LeCun has also worked with robotics and Al hardware. He recently founded NYU's Center for Data Science. And he has mentored a new generation of Al researchers, including Clement Fabaret, whose image-indexing company Madbits was recently acquired by Twitter. In his spare time, he builds model planes."

-http://www.wired.com/2014/08/deep-learning-yann-lecun/

### APPROXIMATELY HARD: THE UNIQUE GAMES CONJECTURE

"Now, the field of computational complexity has been electrified by a new conjecture, which, while not as monumental as the P versus NP conjecture, in some sense picks up where that conjecture leaves off. If the 'Unique Games Conjecture' [UGC] is correct, then for many of the problems people would most like to solve, it's hard not only to find an exact solution—finding even a good approximation of the solution is beyond the reach of a computer. "The conjecture is an anchor to which we can connect an enormous number of approximation problems," says Avi Wigderson of the Institute of Advanced Study in Princeton. "It creates a theory.""

- -www.simonsfoundation.org
- -http://preview.tinyurl.com/pf9ew74
- -http://www.wired.com/2014/08/subhash-khot-nevanlinna-prize/

#### SCIENTISTS PROGRAM LARGEST SWARM OF ROBOTS EVER

"The researchers used robots they designed and built called Kilobots, which aren't much bigger than a penny. Each one costs \$14 in parts and only takes a few minutes to put together—you can even order some for yourself. To program them all at once, the researchers beam down instructions via an infrared light from an overhead control-

**◄** (Continued from page 30)

ler. The robots communicate with one another by sending and receiving infrared signals. The team programmed 1,024 of these robots to gather into the shape of a star, the letter "K," and a wrench."

—http://www.wired.com/2014/08/largest-robot-swarm-ever/

## CREATOR OF POP-UP ADS APOLOGIZES FOR DOING HIS PART TO RUIN THE INTERNET

"In a lengthy piece for *The Atlantic* [http://preview.tinyurl.com/mlaxv3j], Ethan Zuckerman talks about spending the early days of the Internet working for the shapeshifting Tripod.com, which started as content company marketed to recent college grads and eventually became a web-hosting service acquired by Lycos in 1997. "The model that got us acquired was analyzing users' personal homepages so we could better target ads to them," he writes. "Along the way, we ended up creating one of the most hated tools in the advertiser's toolkit: the pop-up ad.""

- -consumerist.com
- -http://preview.tinyurl.com/q9uyxzm

### HOW TO PREVENT WEBSITES FROM HIJACKING KEYBOARD SHORTCUTS

"Keyboard shortcuts are a great way of speeding up certain operations in the web browser of choice. Ctrl-t opens a new tab, Ctr-s saves the displayed content to the local system, and Ctrl-I moves the cursor to the browser's address bar. Sometimes however these shortcuts won't work and the core reason for this is that the website you are on hijacked it. Without going into too many technicalities: websites can override shortcuts by using JavaScript. A basic example is Gmail where the shortcut /, which should open the on-page search in Firefox, moves the cursor to the site's search field instead."

- -www.ghacks.net
- —http://preview.tinyurl.com/oy5hfsg

### SEE WHO LINKS TO [A] SITE, AND HOW

"To find a sampling of links to any site, you can perform a Google search using the link: operator. For instance, [link:www.google.com] will list a selection of the web pages that have links pointing to the Google home page. Note there can be no space between the "link:" and the web page URL."

- —https://support.google.com/webmasters/answer/55281?hl=en
- —[find sites that link to a site]—http://preview.tinyurl.com/ocg2zyy

**◄** (Continued from page 31)

### ADDETECTOR REVEALS SPONSORED POSTS ON WEBSITES YOU VISIT

"While you may be able to tell that a post is sponsored by looking at links or images used in the post, or by going through scripts loaded on the site, it is not something that many users may or even can do. The free Firefox add-on and Chrome extension Ad-Detector changes this by highlighting sponsored posts so that you know right away if a post is sponsored or not.

- -www.ghacks.net
- -http://preview.tinyurl.com/ndjfl87
- —on Metafilter—http://preview.tinyurl.com/qcdewx9

### DO WE LOOK FAT IN THESE SUBURBS?

"They looked at the three fundamental measures of street networks—density, connectivity, and configuration—in 24 California cities, and compared them with various maladies. In the current Journal of Transport and Health, Garrick and Marshall report that cities with more compact street networks—specifically, increased intersection density—have lower levels of obesity, diabetes, high blood pressure, and heart disease. The more intersections, the healthier the humans."

- —http://www.theatlantic.com/
- -http://preview.tinyurl.com/nw39v7y

## WHY ONE OF CYBERSECURITY'S THOUGHT LEADERS USES A PAGER INSTEAD OF A SMART PHONE

"Speaking on his own behalf as the keynote at Black Hat USA last week, Geer laid out an ambitious plan to help secure the Internet and define privacy in the digital age, including mandating security breach disclosure, having the U.S. government buy and disclose all the zero day vulnerabilities it can find, and supporting an even stronger "right to be forgotten" than is currently being tried out by the European Union. His full keynote is available to watch on YouTube -- or to read via Black Hat's Web site."

- -www.washingtonpost.com
- -http://preview.tinyurl.com/k33cgg4

### BILL GATES DUMPS ICE WATER ON HIS HEAD

—gsearch—http://preview.tinyurl.com/p8amaq5

### AS GERMAN BOMBS FELL ON PARIS, MARIE CURIE DECIDED TO GO TO WAR

"Her inspiration for what came next might have come from the lead box of radium she stowed in a safe deposit box in Bordeaux that summer. The single gram she had worked so hard to isolate was the only radium available for research in France. She

**◄** (Continued from page 32)

would be unable to experiment with radium during the war, so why not spend her time learning more about another kind of radiography? Marie had long wanted to learn more about X-rays. As she set to work educating herself about this sister science, she quickly realized that she had a powerful technology on her hands. And then it struck her: The war was likely to be long and bloody. Trench conditions and advanced weaponry promised the bloodiest war in history. Maybe X-rays could help. Why not bring them to the battlefield?"

- -http://mentalfloss.com
- -http://preview.tinyurl.com/p8xwrjr

### 46 PHOTOGRAPHY EBOOKS YOU CAN HAVE FOR FREE

"Among the free resources compiled by LS are National Geographic's "Ultimate Field Guide to Photography," Strobist's "Lighting 101," Adorama's "Guide to Lighting" and many many more."

- -petapixel.com
- -http://preview.tinyurl.com/q3fpagb

### WHAT'S THE DIFFERENCE BETWEEN A "DISC" AND A "DISK?"

"They're pronounced the same, but, technically speaking, there is a distinct difference between a disc and a disk.

**Discs**—A disc refers to optical media, such as an audio CD, CD-ROM, DVD-ROM, DVD-RAM, or DVD-Video disc. Some discs are read-only (ROM), others allow you to burn content (write files) to the disc once (such as a CD-R or DVD-R, unless you do a multisession burn), and some can be erased and rewritten over many times (such as CD-RW, DVD-RW, and DVD-RAM discs). All discs are removable, meaning when you unmount or eject the disc from your desktop or Finder, it physically comes out of your computer.

**Disks**—A disk refers to magnetic media, such as a floppy disk, the disk in your computer's hard drive, an external hard drive. Disks are always rewritable unless intentionally locked or write-protected. You can easily partition a disk into several smaller volumes, too. Disks are usually sealed inside a metal or plastic casing (often, a disk and its enclosing mechanism are collectively known as a "hard drive").

- -http://support.apple.com/kb/HT2300
- -wpedia http://en.wikipedia.org/wiki/Spelling of disc
- —gsearch [disc disk] http://preview.tinyurl.com/ghprpsm
- —Suggested by an 8/16/14 email from Henry Bender

**◄** (Continued from page 33)

### PREPARE TO BE SHOCKED

"Four predictions about how brain stimulation will make us smarter. Several years ago, the Defense Advanced Research Projects Agency got wind of a technique called transcranial direct-current stimulation, or tDCS, which promised something extraordinary: a way to increase people's performance in various capacities, from motor skills (in the case of recovering stroke patients) to language learning, all by stimulating their brains with electrical current. The simplest tDCS rigs are little more than nine-volt batteries hooked up to sponges embedded with metal and taped to a person's scalp."

- -http://www.theatlantic.com
- -http://preview.tinyurl.com/lme575w

#### THE REAL VALUE OF ONLINE EDUCATION

"Why low completion rates may not matter. Out of all the students who enroll in a MOOC, only about 5 percent complete the course and receive a certificate of accomplishment. This statistic is often cited as evidence that MOOCs are fatally flawed and offer little educational value to most students. Yet more than 80 percent of students who fill out a post-course survey say they met their primary objective. How do we reconcile these two facts?"

- -www.theatlantic.com
- -http://preview.tinyurl.com/muwpc89

## A BRIEF HISTORY OF USB, WHAT IT REPLACED, AND WHAT HAS FAILED TO REPLACE IT

"USB isn't perfect, but it replaced lots of ports we'll never have to see again. . . . It's possible that in a few years, USB Type-C will have become the norm, totally replacing the tangled nest of different cables that we all have balled up in our desk drawers. . . . While we wait to see whether Type-C will save us from cable hell or just contribute to it, let's take a quick look at where USB has been over the years, what competing standards it has fought against, and what technologies it will continue to grapple with in the future.

- -arstechnica.com
- —http://preview.tinyurl.com/mkxca37

### HOW MUCH TIME WOULD A REVERSIBLE USB CABLE SAVE?

"As Samuel Gibbs reports, Apple filed a patent in 2013 for "reversible or dualorientation USB plug connectors" that can be plugged into any standard computer USB port to "reduce the potential USB connector damage and user frustration"."

- -www.theguardian.com
- —http://preview.tinyurl.com/n5h4wfa

**◄** (Continued from page 34)

#### THE BEST DRONES

"Of the dozens of drones aimed at the aspiring aerial photographer/videographer, the \$1,300 DJI Phantom 2 Vision+ is the one we recommend for most people, as it's the only one that is easy to control while having great battery life and range, terrific safety features, and a smartphone app that lets you preview your on-drone camera for photography and piloting ease."

--http://thewirecutter.com/reviews/best-drones/

### HOW TO WRITE A WIKIPEDIA ARTICLE

—gsearch—http://preview.tinyurl.com/on3ywvo

### SELF-PUBLISHING, ON-DEMAND DISTRIBUTION

-gsearch-http://preview.tinyurl.com/nbyvptz

Maury Green has used and recommended Lulu—gsearch—http://preview.tinyurl.com/p4v4xy9

### CONVERT EBOOKS LIKE A PRO WITH TEBOOKCONVERTER

"TEBookConverter is based on Calibre, an ebook manager which can also be used to convert documents. The main advantage it has over Calibre is that it is easier to use. This is of course only true if you don't require functionality that Calibre offers such as library management or editing ebooks. . . . The program worked well during tests and since it supports a massive amount of input and output formats, should be suitable for the majority of users who want to convert one ebook format into another.

—http://www.ghacks.net/2014/08/19/convert-ebooks-like-a-pro-with-tebookconverter/

### TODO BACKUP 7, NEW SMART BACKUP FEATURE AND INTERFACE

"The new version of Todo Backup Free improves the program only marginally. While Smart Backup is an interesting addition to the program, it is not really a new feature since file sync programs have offered it for a long time. . . . That does not mean that the program is not excellent and offers lots of value to users who don't want to spend money on a paid program. Heck, there are commercial backup solutions out there that support less than this program does."

- -www.ghacks.net
- -http://preview.tinyurl.com/ogzh4fc

**◄** (Continued from page 35)

### HOW TO SPEAK THE LANGUAGE OF THOUGHT

"One application of techniques like these, which are equal parts highly specialised measurement systems and fiercely complicated algorithms, has been to decode the brain activity in patients who are locked in or in a vegetative state. These patients can't move any of their muscles, and yet they may still be mentally aware and able to hear people talking to them in the same room. First, the doctors ask the patients to imagine activities which are known to active specific brain regions – such as the hippocampus. The data is then decoded so that you know which brain activity corresponds to certain ideas. During future brain scans, the patients can then re-imagine the same activities to answer basic questions. For instance, they might be told to imagine playing tennis to answer yes and walking around their house to answer no – the first form of communication since their injury."

—http://www.bbc.com/future/story/20140815-how-do-thoughts-form

### How Do You Weigh a Helium Balloon?

""What weighs more, five pounds of helium, or five pounds of cheese?" . . . But the point is, it's entirely possible to have a five pound balloon of helium. Mind you, it'll lift a lot more than five pounds; a balloon that size can lift about 25 pounds. You could tie the cheese to it and it would still float away! That's a waste of a balloon, and cheese. I don't recommend this either."

- -http://www.slate.com
- —http://preview.tinyurl.com/mjyz94y

## THE ONION REACTS TO FACEBOOK'S HAND-HOLDING OF YOUR IDIOT FRIENDS

"Earlier today, Facebook confirmed it was rolling out a system that labels links from The Onion and others as "satire," so that your idiot friend from high school would (hopefully) realize that the President didn't run over Jimmy Carter with his car, or that Dick Van Dyke may not have been the Zodiac killer. Oddly enough, the esteemed news source's response to the Facebook announcement is much closer to truth than it is to satire."

- —[consumerist.com—http://preview.tinyurl.com/kymchnb
- —http://www.theonion.com/articles/area-facebook-user-incredibly-stupid,36712/
- —http://preview.tinyurl.com/lm3utlc
- —gsearch[facebook onion satire]—http://preview.tinyurl.com/krelevb

## PLEASE ENJOY SIX MINUTES OF WILLIE NELSON PERFORMING A CARD TRICK.

—http://www.metafilter.com/142016/My-heroes-have-always-been-pocket-cowboys

**◄** (Continued from page 36)

#### **PETAPIXEL**

"Established in May of 2009, PetaPixel is a leading blog covering the wonderful world of photography. We love photography, and we want to see others love it too. Our goal is to inform, educate, and inspire in all things photography-related."

—http://petapixel.com/about/

#### CHINATOWN TALES OF AN \$85 IPHONE SCREEN REPLACEMENT

"While iPhone display panels used to be a separate part from the glass that covered them, Apple fused the two starting with the iPhone 4, making it much more cost-prohibitive to fix. Apple now charges \$79 to fix a cracked iPhone 5 or 5S screen under AppleCare+, or \$270 outside of warranty. I paid this sum once to replace a cracked iPhone 4S. I never will again."

- -arstechnica.com
- -http://preview.tinyurl.com/np68szu
- -Also read the comments

#### **DEVELOPING BRAINS SWITCH MATHS STRATEGIES**

"Counting on fingers gives way to memorized sums as neurons change connections."
—http://www.nature.com/news/developing-brains-switch-maths-strategies-1.15724

#### HOW TO HACK AND CRACK THE CONNECTED HOME

"The BBC set up a house filled with a variety of smart gadgets and asked researchers to demonstrate how easy it was to crack the security systems on them."

—http://www.bbc.com/news/technology-27373328

# NATIVEWRAP FOR ANDROID TURNS WEBSITES INTO APPS TO IMPROVE YOUR PRIVACY

"NativeWrap for Android . . . allows you to turn any website you visit into an Android app. Not only does the app require less permission that the official one, it is also blocking tracking as cookies that get set during a session are not shared. One interesting side effect of this behavior is that you can easily work with different profiles as all are kept separate from each other. If you have two Facebook profiles or two Gmail accounts for example, you can create an app for each so that you can use all accounts without having to worry about logging out and logging in all the time to do so."

- -www.ghacks.net
- —http://preview.tinyurl.com/okvkwkn

**◄** (Continued from page 37)

## FAST SEARCH FOR EBAY SPEEDS UP YOUR EBAY SEARCHES WHEN USING CHROME

"It adds an icon to Chrome's address bar that you can click on to display its interface. To search, you simply type a search term and hit enter. Before you do, it is possible to select a specific category you want to restrict your search to change the sorting order from best match to others supported by eBay."

- —http://www.ghacks.net/
- —http://preview.tinyurl.com/mv7eybk

#### COSMETIC CHEMISTRY – THE COMPOUNDS IN RED LIPSTICK

"An average composition of lipsticks is given in the graphic, but, in truth, this can be widely varied from lipstick to lipstick. Generally, however, waxes and oils make up the bulk of lipstick's composition. Waxes are perhaps the most important, as they are crucial for the structure and shape of the lipstick. A range of different naturally occurring waxes can be utilised, with beeswax commonly a major constituent. Beeswax is composed of around 300 different chemical compounds; the principle compounds are esters, which make up around 70% of the composition. The remaining 30% of compounds includes organic acids and hydrocarbons."

—http://www.compoundchem.com/2014/08/18/lipstick/

### SCIENTISTS FINALLY CATCH ON TO SOCIAL MEDIA

"More than 4.5 million researchers have signed up for ResearchGate, and another 10,000 arrive every day, says Madisch. That is a pittance compared with Facebook's 1.3 billion active users, but astonishing for a network that only researchers can join. And Madisch has grand goals for the site: he hopes that it will become a key venue for scientists wanting to engage in collaborative discussion, peer review papers, share negative results that might never otherwise be published, and even upload raw data sets. "With ResearchGate we're changing science in a way that's not entirely foreseeable," he says, telling investors and the media that his aim for the site is to win a Nobel prize."

—http://www.scientificamerican.com/article/scientists-finally-catch-on-to-social-media/

(Continued on page 39) ▶

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## WE WANT THIS NETFLIX HACK THAT ADJUSTS COLOR OF ROOM LIGHTS TO MATCH SCREEN

"As demonstrated in the above video, the lights respond in real time to onscreen color changes. Some TV manufacturers have dabbled with ambient lighting that changes according to the colors being shown on the screen, but this hack operates from within the app so it doesn't require a certain type of TV, or even a TV at all. So if you're watching Netflix on your phone or tablet, the lighting changes would still work — so long as you have the very expensive Hue bulbs."

- -consumerist.com
- —http://preview.tinyurl.com/oz3wn6x

# WATCH SUSPECTED SCAMMERS INSTALL AND HARVEST DATA FROM ATM SKIMMERS

"Police released 10 minutes' worth of footage of ATM skimmer footage, which is interesting mostly because of how normal the "installers" look. If you didn't know better, you might assume that the men are just reaching in their bags or pockets to get their cards or locate a check that needs depositing. From the lobby camera and from inside the ATM, the installation of skimmer equipment just looks like regular business. At least, until the guy in the plaid shirt sticks his tongue out in concentration. Usually that doesn't happen while depositing a check."

- consumerist.com
- —http://preview.tinyurl.com/kson2sd

### THE EVOLUTION OF ATM SKIMMERS

"In a little over a decade, ATM skimmers have gone from urban myth to a wildly complex, ever-evolving suite of technologies that has the potential to be the worst night-mare of anyone with a bank account. Here's a look at how quickly skimmers have evolved—and why they're increasingly impossible to spot."

-http://gizmodo.com/the-terrifying-evolution-of-atm-skimmers-1626794130

### WIZMOUSE ENABLES YOU TO MOUSE-SCROLL ALL WINDOWS

"WizMouse comes with another feature that some users may find useful. You can enable support for applications that don't support mouse wheels. This means that you can use the mouse wheel to scroll in those applications even if they don't support that natively."

- —http://www.ghacks.net
- -http://preview.tinyurl.com/nc4gzwy

**◄** (Continued from page 39)

### WHAT DO TALKING APES REALLY TELL US?

"Dedicated researchers brought apes like Koko into their homes or turned their labs into home-like environments where people and apes could play together and try, often awkwardly, to understand each other. The researchers made these apes the center of their lives. But the research didn't deliver on its promise. No new studies have been launched in years, and the old ones are fizzling out. A behind-the-scenes look at what remains of this research today reveals a surprisingly dramatic world of lawsuits, mass resignations, and dysfunctional relationships between humans and apes."

- -www.slate.com
- —http://preview.tinyurl.com/oydwgwk

#### WHAT HAPPENS WHEN YOU HIDE EVERYTHING ON FACEBOOK?

"Two domestic stories have dominated American social media for well over a week [as of Fri 8/22/14]: the ALS Ice Bucket Challenge and the ongoing protests in Ferguson. But as many have pointed out, where we're getting news about each has broken down along platform lines: Facebook is the place to share ice bucket videos, while Twitter is the constantly refreshing stream of news from Ferguson.

The reason for the split, as Digiday and others have pointed out, may be that Face-book's algorithm is specifically designed to show you feel-good stories—ones that you're more likely to share. Violence and strife are bad for virality. When the Washington Post's Tim Herrera cataloged every post served to him in his Facebook feed, he discovered that he was shown only 29 percent of the total posts made by people in his network. "

- -www.slate.com
- —http://preview.tinyurl.com/mmkojp6

#### THE PUFFERFISH'S LETHAL POISON SHOWS UP RIGHT UNDER OUR FEET

"It turns out that these worms have another powerful tool in their arsenal, liquefying enzymes aside. In a fascinating discovery published earlier this summer, scientists confirmed the presence of tetrodotoxin, or TTX, in both Bipalium adventitium and a cousin, Bipalium kewanse. Most commonly associated with Japanese pufferfish, TTX works by blocking the voltage-gated sodium channels in nerve and muscle tissue, which prevents the electrical signals that allow muscles to move, resulting in paralysis. The worms seem to use this neurotoxin to immobilize their prey before proceeding to liquify it.

Like certain snails, humans also seem to be drawn toward tetrodotoxin. The first recorded incidences of pufferfish intoxication come from ancient China, more than 2,000 years ago. Pufferfish, or "fugu," is still eaten today as a delicacy in East Asia, but is only safe when prepared by specially trained chefs."

—http://nautil.us/blog/the-pufferfishs-lethal-poison-shows-up-right-under-our-feet

**◄** (Continued from page 40)

#### YOUR ANONYMOUS POSTS TO SECRET AREN'T ANONYMOUS AFTER ALL

"But it's hard not to see the incident as another warning about every app that tries to weld privacy and anonymity features onto a social networking chassis. They're apps like Whisper, Yik Yak and the ephemeral photo sharing app Snapchat, which lets you share photos with friends that will vanish as soon as they're seen. In May, Snapchat settled with the FTC over charges that it exaggerated the security of its disappearing photos. It turns out (as you'd expect) the recipient could save any snap by taking a screenshot or using a third-party client. Snapchat agreed to be more honest about the limits of its service, and to accept 20 years of monitoring by FTC regulators."

—http://www.wired.com/2014/08/secret/

### START-UPS AIM TO CONQUER SPACE MARKET

"Space Exploration Technologies, or **SpaceX**, started by the Tesla founder Elon Musk, is already a contractor for NASA, running supply missions to the International Space Station. Another start-up, Masten Space Systems, with headquarters in Mojave, Calif., is developing rockets designed for unmanned research flights. Skybox Imaging, based in Mountain View, Calif., makes satellites similar to those of Planet Labs, though they are significantly larger.

[Another company,] **Planet Labs** announced that it would put about 100 satellites into space from the United States and Russia, bringing the total number of "Doves," as the company calls them, to 131. That larger network, which Planet Labs hopes to complete within a year, is expected to create a daily photo mosaic of most of Earth. That mosaic could be valuable to private customers, like agricultural companies monitoring farmlands, or even to governments trying to figure out how to aid natural disaster victims."

- -www.nytimes.com
- -http://preview.tinyurl.com/qgqz64a

#### CLIPPER CARD — TECHNOLOGY

"Clipper card is a reloadable contactless smart card used for electronic transit fare payment in the San Francisco Bay Area. . . . Clipper utilizes a NXP Semiconductors MIFARE DESFire (MF3ICD40) integrated circuit to manufacture the card. The card operates on the 13.56 MHz range putting it into the Near Field Communication category (rather than RFID, as is commonly misconceived). Because the card uses NFC technology, any NFC enabled Android cellphone can read the serial number, travel history, and current balance on the card.[20] However, data cannot be written to the card without the proper encryption key, preventing unauthorized access to funds on the card. The former Translink cards, while still functional on the fare system readers, do not conform for MIFARE and are unreadable by 13.56 MHz readers."

—http://en.wikipedia.org/wiki/Clipper\_card#Technology

**◄** (Continued from page 41)

#### ONE ENGINEER'S CLIPPER CARD HACK

"Anthony Wu is a Bay Area engineer and co-founder of LearnSprout, a data analytics start-up that focuses on building APIs\* for K-12 education. Wu was poking around on the website for Clipper Card, the Bay Area's contact-less universal transit card launched in 2010 that works much like London's Oyster Card and Washington, D.C.'s SmarTrip. Using the Clipper Card to board buses and the like, Wu says, is a fine experience. But when he looked at the program's online existence, he was horrified. "Not only is the clippercard web site a total UX/UI disaster," he wrote on the code sharing site GitHub, "its behind-the-scene's HTML structure and HTTP protocol is a complete exercise in palmface."

—http://nextcity.org/daily/entry/one-engineers-clipper-card-hack

#### RFID vs. NFC: What's the Difference?

"Short Answer: RFID is the process by which items are uniquely identified using radio waves, and NFC is a specialized subset within the family of RFID technology. Specifically, NFC is a branch of High-Frequency (HF) RFID, and both operate at the 13.56 MHz frequency. NFC is designed to be a secure form of data exchange, and an NFC device is capable of being both an NFC reader and an NFC tag. This unique feature allows NFC devices to communicate peer-to-peer. "

- -http://blog.atlasrfidstore.com/rfid-vs-nfc
- —gsearch http://preview.tinyurl.com/mhxv8k8

#### WORLD'S COOLEST MOLECULES

"It's official. Yale physicists have chilled the world's coolest molecules. The tiny titans in question are bits of strontium monofluoride, dropped to 2.5 thousandths of a degree above absolute zero through a laser cooling and isolating process called magneto-optical trapping (MOT). They are the coldest molecules ever achieved through direct cooling, and they represent a physics milestone likely to prompt new research in areas ranging from quantum chemistry to tests of the most basic theories in particle physics." —http://phys.org/news/2014-08-world-coolest-molecules.html

# FOR SALE: SYSTEMS THAT CAN SECRETLY TRACK WHERE CELLPHONE USERS GO AROUND THE GLOBE

"Makers of surveillance systems are offering governments across the world the ability to track the movements of almost anybody who carries a cellphone, whether they are blocks away or on another continent.

Location tracking is an increasingly common part of modern life. Apps that help you navigate through a city or find the nearest coffee shop need to know your location. Many people keep tabs on their teenage children — or their spouses — through track-

**◄** (Continued from page 42)

ing apps on smartphones. But these forms of tracking require consent; mobile devices typically allow these location features to be blocked if users desire.

But tracking systems that access carrier location databases are unusual in their ability to allow virtually any government to track people across borders, with any type of cellular phone, across a wide range of carriers — without the carriers even knowing. These systems also can be used in tandem with other technologies that, when the general location of a person is already known, can intercept calls and Internet traffic, activate microphones, and access contact lists, photos and other documents."

- -www.washingtonpost.com
- —http://preview.tinyurl.com/nkyc7ml

### HOW THE NAPA EARTHQUAKE AFFECTED BAY AREA SLEEPERS

"The South Napa Earthquake was the strongest to hit Northern California in 25 years. Our data science team wanted to quantify its effect on sleep by looking at the data recorded by Jawbone UP wearers in the Bay Area who track their sleep patterns. . . . Once awaken, it took the residents a long time to go back to sleep, especially in the areas that felt the shaking the strongest. In fact, 45% of UP wearers less than 15 miles from the epicenter stayed up the rest of the night. Below [on the linked page] is a visualization prepared by our Senior Data Scientist Brian Wilt that shows how the South Napa Earthquake's effect on the UP wearers' sleep changes with the distance from the epicenter."

—https://jawbone.com/blog/napa-earthquake-effect-on-sleep/

#### A MATERIAL SO DARK THAT IT LOOKS LIKE A BLACK HOLE

"But a material called Vantablack, being refined in labs now, traps light so completely that practically none escapes. The substance captures a full 99.96 percent of the light that hits it, which the human visual system perceives as deep, textureless blackness. Even when it's applied to aluminum foil and then wrinkled, the part covered with Vantablack looks just as flat as can be, with no discernable silvery creases. It's eerie, to have the physical world line up so poorly with expectations. It's also potentially very valuable—making it look like there's nothing where there's really something is a long-time goal for defense departments."

—http://nautil.us/blog/a-material-so-dark-that-it-looks-like-a-black-hole

### CYBORG MOTHS, WIRED FROM BIRTH, COULD SERVE AS LIVING DRONES

"In a lab at North Carolina State University, researchers have created moths that are a blend of wires and tissue. The eventual plan: to control a cyborg moth army. The biobots could be used to map ecosystems, spot survivors in search and rescue missions, or to carry out spy missions."

- -blogs.discovermagazine.com
- —http://preview.tinyurl.com/nkdjnmz

**◄** (Continued from page 43)

#### HOW TO BUILD YOUR OWN VR HEADSET

"As it turns out, all it takes to create your own VR headset is a 3D printer, a couple magnifying lenses, and a smartphone. Just don't tell Facebook that."

- -http://www.theverge.com/a/virtual-reality/vr explainer
- -start of article http://www.theverge.com/a/virtual-reality

#### GLITCH ART'S PIXEL-MIXING ALGORITHMS

"Now, a so-called "glitch aesthetic" is gaining ground as visual artists develop and master ever more ways of creating beautiful images through the corruption of their data."

- —https://medium.com/re-form/breaking-things-on-purpose-14f413bdf2ce
- -https://en.wikipedia.org/wiki/Glitch\_art
- —http://www.docpop.org/2013/12/the-complete-list-of-ios-glitch-apps/
- -http://preview.tinyurl.com/ll6nndv
- —gsearch [glitch art free windows] http://preview.tinyurl.com/o427wx5

#### HEAR WHAT STREET VIEW SOUNDS LIKE

"Amplifon is the company behind the ability for Street View to play back audio, adding yet another layer of dimension, which is sound. Amplifon happens to be the British arm of an Italian hearing-aid company, where it has come up with ambient noise for Street View, although the use of this technology is made available only for a trio of locations – namely Balboa Park in San Diego, Place du Palais in Monaco, and Hapuna Beach in Hawaii."

- —http://www.ubergizmo.com
- -http://preview.tinyurl.com/mwab67z

#### SILICON VALLEY ADVANCED WATER PURIFICATION CENTER

"The state-of-the-art facility takes treated wastewater that would have otherwise been discharged into the San Francisco Bay and purifies it by using three proven purification processes: microfiltration, reverse osmosis and ultraviolet light. The result is up to 8 million gallons a day of highly purified water that is expected to match California primary drinking water standards."

—http://valleywater.org/EkContent.aspx?id=5229&terms=purification

#### WHY YOUR TOILET NEEDS REINVENTION

"Perhaps we won't always resist the replacement of our porcelain flushers with something new: after all, centuries ago the idea of an indoor toilet was initially shunned too. Doing such dirty deeds not far from the kitchen and living room "took a while to catch on," says Cheong. For the moment, however, the Western flush toilet is an incredible invention quickly becoming outdated. Science has demonstrated that there are per-

**◄** (Continued from page 44)

fectly sensible and greener alternatives, but for now it's our psychological reaction, not our inability to innovate, that is clogging the pipes of progress."

—http://www.bbc.com/future/story/20140826-why-your-toilet-needs-reinvention

## THE PLAN TO BUILD A MASSIVE ONLINE BRAIN FOR ALL THE WORLD'S ROBOTS

"[Stanford researchers have] unveiled what they call RoboBrain, a kind of online service packed with information and artificial intelligence software that any robot could tap into. Working alongside researchers at [other institutions], they hope to create a massive online "brain" that can help all robots navigate and even understand the world around them. "The purpose," says Saxena, who dreamed it all up, "is to build a very good knowledge graph—or a knowledge base—for robots to use." Any researcher anywhere will be able use the service wirelessly, for free, and transplant its knowledge to local robots. These robots, in turn, will feed what they learn back into the service, improving RoboBrain's know-how. Then the cycle repeats."

-http://www.wired.com/2014/08/robobrain/

# REALISTIC ROBO-HAWKS DESIGNED TO FLY AROUND AND TERRORIZE REAL BIRDS

"Nijenhuis, a 27-year-old based in the Netherlands, is the mind behind Robirds, a line of robotic birds of prey. He's hoping to sell them to the aviation and waste management industries under the name Clear Flight Solutions. (Company tagline: "We create birds." Fair enough!) Nijenhuis is currently testing remote controlled Peregrine Falcons and eagles with promising results. By the end of the year, he's hoping to have fully autonomous robot birds on offer."

- -www.wired.com
- —http://preview.tinyurl.com/nuyxhq9

## THESE 3-D PRINTED SKELETON KEYS CAN PICK HIGH-SECURITY LOCKS IN SECONDS

"As a result, all anyone needs to open many locks previously considered "unbumpable" is a bit of software, a picture of the lock's keyhole, and the keyhole's depth, says Weyers, a competitive lockpicker and security consultant. "You don't need much more to make a bump key," Weyers told an audience at the Hackers On Planet Earth conference, where he first hinted at the key printing software last month. "Basically, if I can see your keyhole, there's an app for that.""

http://www.wired.com/2014/08/3d-printed-bump-keys/

**◄** (Continued from page 45)

## HOW COPS AND HACKERS COULD ABUSE CALIFORNIA'S NEW PHONE KILL-SWITCH LAW

"The law raises concerns about how the switch might be used or abused, because it also provides law enforcement with the authority to use the feature to kill phones. And any feature accessible to consumers and law enforcement could be accessible to hackers, who might use it to randomly kill phones for kicks or revenge, or to perpetrators of crimes who might—depending on how the kill switch is implemented—be able to use it to prevent someone from calling for help."

- -www.wired.com
- —http://preview.tinyurl.com/pozh2jy

### THIS ILLUSTRATOR MAKES \$100K SELLING VIRTUAL PAINTBRUSHES

"Webster's clients run the gamut of the illustrator profession. We talked to a few, to see if what they had to say. Turns out, no matter their style or background, they all tend to echo one another's thoughts. And what they like most isn't that the digital brushes feel perfect, but rather that they feel unpredictable. They require experience and experimentation, just like real brushes."

- —http://www.wired.com/
- —http://preview.tinyurl.com/nkdodcy

#### AN F1 CAR DOING DONUTS LOOKS EVEN COOLER IN INFRARED

"Not surprisingly, we have Infiniti Red Bull Racing to thank for this insanity. Looking for an extra edge, it teamed up with thermal imaging company FLIR (which makes a very impressive iPhone infrared camera) to get better info on how its RB10 Formula One car's various components heat up and cool off, so it can manage temperatures and improve reliability."

—http://www.wired.com/2014/08/formula-one-thermal-imaging/

#### SECRETS OF THE FLAMBOYANT CUTTLEFISH'S DISPLAY

"In a new study, Gilles Laurent, Michael Kuba, Tamar Gutnick, and Andres Laan of the Max Planck Institute for Brain Research analyzed one of the flamboyant cuttlefish's more extraordinary displays. Known as the passing cloud display, it consists of dark bands of color moving in waves across the animal's body. While other cephalopods also use passing cloud displays, in the flamboyant cuttlefish they are especially frequent and complex."

—http://www.wired.com/2014/08/secrets-of-the-flamboyant-cuttlefishs-display/

**◄** (Continued from page 46)

# THESE AREN'T FUTURISTIC HOMES FOR PEOPLE. THEY'RE LUXURY CONDOS FOR BEES

"Typical man-made beehives aren't exactly objects of beauty, since they're really just designed for gathering honey efficiently. . . . The final hive [design] works a bit like a casing, or a shell, for what Grigis calls, "generic foam beehives" that Du Rietz installed inside. Relocating thousands of bees—whose jobs are all about navigation, since they go out, collect pollen, and then return—can be disorienting, so Grigis designed the exterior of the beehives to be as organic and familiar as possible, by reflecting the honeycomb structures on the interior: the birch plywood is stained a honey-brown, and the laser-cut lattice is in a hexagonal pattern. A few modern concessions include a thermostat, a scale for measuring the honey production, and, on the exterior, a tiny landing strip for incoming bees making their way back indoors: "We extended it out because when the bees come in they're tired, exhausted from collecting the pollen," Grigis says. "So we created a landing pad.""

- -www.wired.com
- —http://preview.tinyurl.com/kpymbut

#### 7 DIY FARM HACKS

"For farmers, DIY is an ethos born of necessity. When there's a problem to be solved and no affordable, ready-made product for sale to solve it, the only thing left to do is design and build your own solution. The fixes don't need to be elegant; they only need to work.

Consider Mark Himes of Beecher City, Illinois, who solved an expensive problem with nothing more than a doctor's stethoscope, a PVC pipe and a styrofoam cup. A well-buried water pipe had sprung a leak underground somewhere on his property. Digging up the entire pipe was impractical and commercial leak detectors can go for as much as \$1,000. But by taping a stethoscope to the bottom of the cup and attaching the cup to a five-foot-long piece of PVC pipe, Himes built a listening device that easily found the affected section of pipe through four feet of solid earth."

- -modernfarmer.com
- -http://preview.tinyurl.com/mv7p34e

#### WHY ARE STARS STAR-SHAPED?

- "Biology first, THEN physics"
- —http://www.metafilter.com/142269/TLDW-Biology-first-THEN-physics

**◄** (Continued from page 47)

### WHAT HAPPENED TO MOTOROLA

"Getting outflanked by tech upstarts, hacked in two by a fearsome corporate raider, and finally taken over in part by a Chinese company that exists largely because of the world Motorola made for it: Such a fate would have been unthinkable 20 years ago. Motorola was then one of America's greatest companies, having racked up a stunning record of innovation that continually spawned new businesses, which in turn created enormous wealth. Motorola had the vision to invest in China long before most multinational companies. It even developed Six Sigma, a rigorous process for improving quality that would be embraced by management gurus and change the way companies nearly everywhere operate."

- -www.chicagomag.com
- -http://preview.tinyurl.com/pt5fv9o

#### 5 LITTLE-KNOWN WAYS TO SAVE MONEY ON AMAZON

- Amazon Warehouse Deals
- Leave your cart and wander off
- PriceJump. Savings.com has developed a tool (also available as a browser extension) that takes the item you want at Amazon and checks other sites to see whether it's available cheaper somewhere else.
- **CamelCamelCamel.** This site is a tool that lets you get price alerts, track item prices over time, and easily make comparisons.
- Subscribe and Save. This is a tool that's well-known to regular Amazon shoppers, but worth trying when there is something that you really do purchase at regular intervals. You commit to regular shipments, and Amazon knocks 15% off the price.
- —http://consumerist.com/2014/08/29/5-little-known-ways-to-save-money-on-amazon/

## GET A QUICK OVERVIEW OF ALL USB DEVICES

"USB DEvice Tree Viewer is a handy portable program for Windows. It displays information about each connected USB device which can be useful when it comes to troubleshoot issues for example."

—http://www.ghacks.net/2014/08/29/get-a-quick-overview-of-all-usb-devices/

USBDeview, a similar program from Nir Sofir, "is a small utility that lists all USB devices that are currently connected to your PC or have been connected to it in the past. Along with the device name and description, it displays the the serial number (if available), date the device was added and last connected, VendorID and other information." —http://www.snapfiles.com/get/usbdeview.html

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#### SEEING THE GREAT DEPRESSION

"A new project from Yale invites viewers to explore some 175,000 images of America in the 1930s and '40s. . . . For a singular image of the Great Depression and the roughness of those years, it's hard to do much better than Dorothea Lange's 1936 photograph of Florence Owens Thompson, two of her children tucking their faces over her shoulders, a baby in her lap.

Where that image comes from, there are many, many more: around 175,000 surviving portraits of America between 1935 and 1945 taken by the photographers of the government's Farm Security Administration. The Library of Congress, which houses the collection, has, remarkably, digitized all the negatives and tagged the records with loads of data, such as who took the picture and where it was taken.

Now, thanks to a new project known as Photogrammar from Yale University, viewers will have a much easier time exploring the photographs."

- —http://www.theatlantic.com/
- -http://preview.tinyurl.com/kt6m4st

## IS THERE A BETTER WAY TO MEASURE EARTHQUAKES?

"Earthquakes aren't measured linearly, but in orders of magnitude. Which means a 6.1 magnitude quake like the one that shook Northern California over the weekend is about twice as big as the 5.8 earthquake that rattled Washington, D.C., in 2011—and nearly three times as strong in terms of the amount of energy it released.

So why do geologists talk about earthquakes this way? Why not use a scale that operates more like the ones used to measure weight, or length, or temperature, or any number of other natural phenomena?

The answer, it turns out, begins in outer space. "My amateur interest in astronomy brought out the term 'magnitude,' which is used for the brightness of a star," said Charles Richter—the scientist behind the well-known scale of the same name—in a 1980 interview."

- -www.theatlantic.com
- -http://preview.tinyurl.com/llvtmwe

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# TYPE 1A SUPERNOVAE: WHY OUR STANDARD CANDLE ISN'T REALLY STANDARD

- "... Despite their crucial cosmological importance, type 1a supernovae are still very much a mystery. As astronomers study more and more of them, it's becoming increasingly clear just how non-standard these explosions actually are and how little we really know about them." They're standardizable candles, not standard candles," astrophysicist Brad Tucker told me a bit ago, . . . "
- -phenomena.nationalgeographic.com
- -http://preview.tinyurl.com/po58ag8

#### THE HISTORY INSIDE US

- "Improvements in DNA analysis are helping us rewrite the past and better grasp what it means to be human."
- —http://www.technologyreview.com/review/530031/the-history-inside-us/

### THE SPELLBINDING MATHEMATICAL GIFS OF DAVE WHYTE

It's 29 MB, so takes a while to load. Nothing happens for a while,, then things start moving.

- -io9.com
- —http://preview.tinyurl.com/mxqgbm9

#### **DUCKDUCKGO**

"Here's how one small company is slowly, surely beating its way into the most monopolized category in technology: Inside DuckDuckGo, Google's Tiniest, Fiercest Competitor."

—http://www.metafilter.com/142402/DuckDuckGo