October Musings from Your President
by Brad Youngman

SPAUG BUSINESS

First, some business. John Buck suggested that I include some material in this month's musings. I cannot present the material better than he, so I quote:

> At our October General Meeting, we will be nominating officers for our 2015 Board. Please volunteer or accept nomination to run (or stand) for election at our November meeting.
>
> If you don't want to commit to being an officer, please volunteer to help our officers and Planning Committee members. Some areas where we can use some help are:
>
> - **Meetings/Programs** -- Get speakers, learn how to set up equipment, transport and store equipment (as a backup for Carl Moyer), be a microphone runner, door prizes (buy, store, manage, etc.), arrange tours, make sure our meeting room and outside lobby is/are left in good condition

SPAUG Meetings

General Meeting
Open to the Public
Second Wednesday of the month
Palo Alto Elks Lodge
Next Meeting:
October 8, 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 October 22, 7:15 pm,
Christie Bilikam's home,
Palo Alto
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 October 22, Christie Bilikam's home, Palo Alto
  [meeting is on our usual 4th Wednesday, different location]

◀ *(Continued from page 1)*

- **Publicity** -- Make SPAUG visible in various media -- print, online, social media, tv, radio, stores, libraries, schools, Senior centers, etc.; do lobby sign for Elks Lodge,
- **Membership** -- Help at membership table, back up membership chair, keep track of membership data, etc.
- **Newsletter** -- Contribute articles, back up editor and/or production staff
- **Website** -- Back up webmaster(s), note areas for improvement, find/report websites to link to, keep track of website data, etc
- **Technology** -- Be a technology resource for SPAUG, to help us keep track of what we might be doing as a club and as individuals, and help find answers for problems

Opportunities abound.

All of the things listed above are what it takes to make an organization like ours work, and if what you think needs doing is not listed above, you can add it. And if there is something that you would like to do, just let me (or anyone else on the Board or Planning Committee) know.

WEBSITE UPDATE—DO YOU KNOW SOMEONE WHO MIGHT HELP US?

Something missing on the list above is the need to update and modernize our website. If you have developed a site, or know a person or organization that does this kind of work for a reasonable price, we would like to have a conversation with that person.

A TV interview with John Buck and Maury Green about SPAUG will be shown in January 2015. Our website will be mentioned and it would be very nice to have an improved version when that happens. We have a small committee working on the task, but everyone is busy, and getting some outside help seems in order.

John Buck's $100 Challenge to SPAUG

Inspired by Challenge Grants during KQED-FM (88.5) and KALW-FM (91.7) fund-raising drives, I decided to make a similar challenge to SPAUG. My Challenge is this:

If SPAUG gets 30 new paid members, who were never previously members of SPAUG, at a dues rate of $30 or more a year, by July 4, 2015, I (John Buck) will give SPAUG $100.

I invite others to make similar challenges.

Meeting Day: Wednesday, October 8

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. *Map*—http://preview.tinyurl.com/lzzrq8m

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

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

Note that the 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

**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_
- jbuck1467@mindspring.com
    650-961-8859

Newsletter Production:
- _John Sleeman (see above)_

Computer Clinic: _Jim Dinkey (see above)_

►►►_Positions Open:_
- Publicity

RESTORING A PC TO A PREDEFINED STATE, RELATIVELY EASILY

As you know, a number of us in Sunnyvale have been working on the software installation of public computers at our Senior Center. The last piece of software that we wanted was something that would return a computer to a predefined state when rebooted. We wanted the desktop restored to the original configuration, added files and software removed, and deleted items replaced. Commercial software exists but our rate of cash donations are insufficient to cover the annual cost.

While browsing the web I found something interesting called "**Reboot Restore Rx**" (http://tinyurl.com/owzo2ow). This software does exactly what we want and is offered free! I have tried it on my laptop. The only fault I could find is that a clever, persistent person could probably find his way around it. But it would provide protection from careless browsers and those who leave or remove material while using the computers. This might be defense against grandchildren also!! Just provide a guest account and turn on the software from an administrator account. Protection will be provided after a reboot.

MICROSOFT SEPTEMBER UPDATE BLOCKS
KASPERSKY ANTIVIRUS SOFTWARE INSTALLATION

A Senior Center member brought me a computer with an interesting problem – it would not install Kaspersky antivirus software. Errors were listed. So I did what I usually do. I turned off and uninstalled existing antivirus software, ran Malware Bytes (the machine was clean) and ran CCleaner on both the file structure and the registry. An attempt to install Kaspersky again failed. So I googled the error codes and found two things. The first would remove traces of failed installations. This did not improve the situation. The next listed a September Microsoft update that prevented installation of a different antivirus software. I uninstalled the particular update (KB2918614), retried the Kaspersky installation and all was well. On reboot, the machine informed me that there was an update to install. I suspect that Microsoft reinstalled the item that I uninstalled, but I didn't verify my suspicion.

Nothing is simple with Microsoft, and a good Google search often will provide help. It just takes a bit of time to find the wheat mixed with the chaff. And one must be careful, as there are folks out there who will take advantage by providing malicious "help."

That's all for now. See you at our October 8 SPAUG meeting. If you have time, join us at the Elks' Bistro at 5:45 pm for dinner and conversation.

September 24, 2014 General Meeting Minutes
by Christie Bilikam, (*edited for use here*)

Brad Youngman's home,
Attendees: Brad Youngman, Robert Mitchell, John Buck, John Sleeman, Christie Bilikam

REPORTS

- **Vice-President** (John Sleeman) -- retrieved a copy of KMVT release form which can be adapted for use by SPAUG. John will email us a copy for review.

- **Membership Secretary** (Christie Bilikam) -- 25 members were present at the general meeting. Three people renewed their membership.

  John Buck issued a challenge that, if by July 4, 2015, SPAUG enrolls 30 new members (who have never been members before) at full membership rate of $30.00 or more per year, John Buck will donate $100.00 USD to the SPAUG treasury. John Buck challenges other members to do likewise.

- **Website** progress report — It is proposed SPAUG hire a professional website builder. Please make your suggestion to Brad Youngman. SPAUG would like to have the new website up and running by January 2015.

OLD BUSINESS CARRIED FORWARD FROM PREVIOUS MEETINGS

- Better Part **TV program**. John Buck and Dody Lee were primary coordinators.

  John Buck, Maury Green, John Sleeman, Brad Youngman, and Dody Lee were in the studio for the recording of the a 28 minute piece on SPAUG. This show will air in January 2015. KMVT15 is the Mountain View public access station.

- **Signage** for the general meeting needs a tripod or stand. Did someone create one?

- **Bylaws** update- Brad Youngman will ask for volunteers for this committee. John Buck volunteered to be involved.

NEW BUSINESS:

- S**PAUG board and planning meeting dates and locations:**

  ○ 22 Oct at Christie Bilikam's home, Palo Alto, 7-9pm

  ○ 28 Jan 2015 proposed to be at Robert Mitchell's home, Redwood City, 7-9pm

- **SPAUG Letterhead** — At Brad Youngman's request John Buck devised a letterhead for SPAUG. John also did business and membership cards and envelope return-address block (see page 10, online). Those present reviewed the designs. All (except John Buck) agreed the designs were appropriate but needed a little color. Christie Bilikam will experiment with adding color and email suggestions to board.

I (Christine Hyung-Oak Lee) Had a Stroke at 33

"On New Year's Eve 2007, a clot blocked one half of my brain from the other. My reality would never be the same again. . . . In [a] sense, the stroke saved my life."
—http://www.buzzfeed.com
—http://preview.tinyurl.com/oqp875r

How to Recognize a Stroke
http://www.stroke.org/site/PageServer?pagename=symp
—gsearch—http://preview.tinyurl.com/o3o9j29

Researchers are urging the general public to learn to ask these three questions quickly, to someone they suspect of having a stroke. Widespread use of this test could result in prompt diagnosis and treatment of a stroke, and prevent permanent brain damage.
 Read more at http://www.snopes.com/medical/disease/stroke.asp#D1J2g9uvyMiYi42m.99.

F

FACE:

Ask the person to smile.
Does one side of the face droop?

A

ARMS:

Ask the person to raise both arms.
 Does one arm drift downward?

S

SPEECH:

Ask the person to repeat a simple phrase.
Is their speech slurred or strange?

T

TIME:

If you observe any of these signs,
call 9-1-1 immediately

There's More

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

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

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	29		1			4—Clinic, by appointment
	Note: All the SIGs are on a Summer Vacation		8 **5:45 pm** Dinner (Optional), Elks Lodge—Bistro **7:00 pm** General Meeting Elks Lodge, 4249 El Camino, PA			11—Clinic, by appointment only
			15			18—Clinic, by appointment only
			22 **7:15 pm** Board and Planning Mtg Christie Bilikam's home			25—Clinic, by appointment only
			29 **Halloween** ☆			1—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 meeting: Wednesday, October 22, 7:15 pm,
Christie Bilikam's home, Palo Alto (Note location change) 650-248-3026

Board and Planning Meetings are open to all SPAUG members

SIGS

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

Note:
All the SIGs are on a Summer Vacation

Without-Whoms

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*
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President Emeritus; Elks Liaison:
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Vice President: *John Sleeman*
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650-325-1359

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● *Ron Nicholas*
  ron1nick@juno.com
  650-967-2104

Computer Clinic: *Jim Dinkey (see above)*

►►►*Positions Open:*
  ● Publicity

SPAUG Online

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

hosted by www.svpal.org/
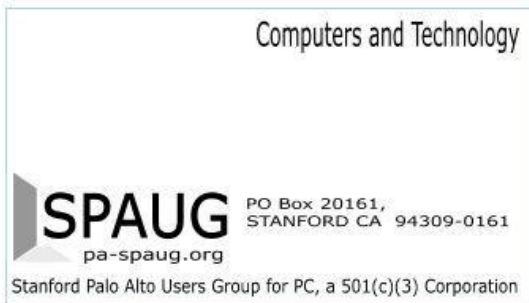

Listserver   spaug-list at svpal.org

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.
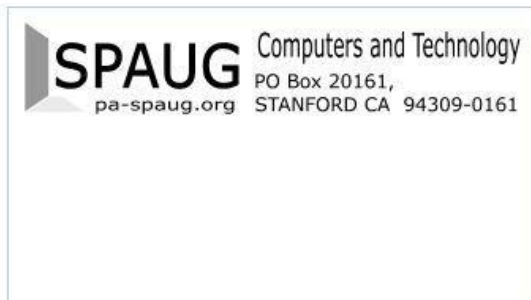
John Buck's proposed SPAUG letterhead and cards

SPAUG Computers and Technology
pa-spaug.org   PO Box 20161, STANFORD CA 94309-0161

Computers and Technology

SPAUG PO Box 20161,
STANFORD CA 94309-0161
pa-spaug.org
Stanford Palo Alto Users Group for PC, a 501(c)(3) Corporation

Business Card

SPAUG Membership Card
pa-spaug.org   PO Box 20161,
   STANFORD CA 94309-0161
Lorem Ipsum
Is a member in good stancing
Membership Expires _08_ / _28_ / _14_
Stanford Palo Alto Users Group for PC, a 501(c)(3) Corporation

Membership Card

SPAUG Computers and Technology
PO Box 20161,
pa-spaug.org   STANFORD CA 94309-0161

Envelope
Return Address

SPAUG, the Stanford Palo Alto Users Group for PC, is a 501(c)(3) Corporation

Filler
by John Buck

WINDOWS 7 STARTUP COMPONENTS

"I [gizmo] have documented the Windows components that are important [in] the Windows 7 Startup article. This article contains three diagrams to describe the Windows environment created at startup:

- kernel-mode system processes.
- user-mode application support primarily provides the environment sub-systems to run programs and the Win32 API.
- user-mode system processes primarily create sessions and allow users to logon.

—www.techsupportalert.com
—http://preview.tinyurl.com/mpp6bgh

FIND OUT HOW MANY COOKIES INTERNET SITES SAVE TO YOUR SYSTEM

"The first thing you may want to check is how many cookies are saved on your system right now. Note that cookies are browser and profile dependent. If you use multiple browsers or different profiles, then you will notice that cookies are independent of each other in this case."
—www.ghacks.net
—http://preview.tinyurl.com/mk28mo8

RESTORE FIREFOX 32 CONTEXT MENU LABELS AND REMOVE ICONS

"Firefox 32 [brought] a change to the browser's main context menu that replaces some text labels with icons. The commands **back, forward, reload, bookmark** and **stop** are no longer displayed as text when you right-click a page in the browser but as icons that are aligned horizontally. The icons reduce the height of the context menu without modifying its functionality. Critics of the change state that it takes longer to load due to the fact that images take longer to load than textual contents and that an icon row does not fit well in there at all on the desktop.

Firefox is the browser that you can customize the most. It comes therefore not as a surprise that you can go back to the old context menu easily. There is also an option to get rid of one or multiple of the icons instead, or move them to another location in the menu. This guide looks at both options."
—www.ghacks.net
—http://preview.tinyurl.com/nv4lrdj

CHANGE FIREFOX MENU SHORTCUTS WITH MENU WIZARD

"Menu Wizard is a handy browser add-on for the Firefox web browser that you can use to hide or move menu items. It supports the Firefox menu bar (not displayed anymore by default), the tab and main context menu, and the bookmarks bar by default so that you can customize what is displayed and how it is displayed in the browser."
—http://www.ghacks.net/2014/09/23/change-firefox-menu-shortcuts-with-menu-wizard/

WINDOWS INSPECTION TOOL SET

"Windows Inspection Tool Set is a free open source program for the Windows operating system that provides users with a set of tools to manage various aspects of the operating system. . . . The tools offer less functionality than top of the line products but are usually easier to use because of this. The feature that I [Martin Brinkmann] like about it the most is the linking between system objects which speeds up the process of analyzing information using the software."
—http://www.ghacks.net/2014/09/23/windows-inspection-tool-set/

HIPS EXPLAINED

What does "HIPS" mean anyway? — It stands for **H**ost **I**ntrusion **P**revention **S**ystem. In essence it's a program that alerts the user to a malware program such as a virus that may be trying to run on the user's computer, or that an unauthorized user such as a hacker may have gained access to the user's computer.

Recommendations — There is no such thing as a "set-and-forget" security program. Try to pick something that you can understand and are happy to use. It's like comparing Sunbelt-Kerio and Comodo firewalls. Yes, if you want to nail things to the ground Comodo has the potential to give better protection, but it's also more difficult to understand. If you find Kerio easier to work with then you are more likely use it effectively and ultimately this would be the better choice (up to Windows XP only. Windows 7 users check out TinyWall) Use the various test results as a guide, but only that. No test can ever duplicate your computer, your programs and your surfing habits.

Conclusion — Users should maybe consider improving their browser security first by replacing IE with Chrome, Firefox or Opera and using a sandbox before thinking HIPS. People with a standard firewall could introduce Malware Defender for additional protection. Users of CIS or Online Armor would gain no advantage from doing so. System load and resource use are a consideration, although mainly for older machines. There really is no definitive solution other than to say that too many of anything is usually too much! All in all it's about striking a balance. The biggest threat to my computer will always be me!
—http://www.techsupportalert.com/content/hips-explained.htm

◀ *(Continued from page 12)*

CONTROL FIREFOX BROWSER ACTIONS
LIKE ZOOMING OR SCROLLING WITH THE MOUSE

"EdgeWise is a browser extension for the Firefox web browser that adds mouse-only shortcuts to the browser. . . . If you like to use the mouse or need to use it, then you may find EdgeWise useful even though it may take some time before you get used to moving the mouse into the area on the left side of the browser window to execute these actions."
—www.ghacks.net
—http://preview.tinyurl.com/qznstb3

THE BEST AUDIO AND VIDEO INFORMATION PROGRAMS FOR WINDOWS

"Depending on how you use your Windows PC and where videos that you want to play on it come from, you may have no troubles doing so or notice that some video or audio files won't play correctly on your system. You may see a black screen when you load a video in your favorite media player, have no audio while the video plays fine, or notice other issues such as slow playback or files that cannot be played at all.

Experienced users know that these issues are usually codec related. Without going into too many details, codecs are used by media players to playback video files that require them. Video files require an audio and video codec which can result in situations where the video plays but the audio does not or vice verse.

This best of list reviews programs that help you find out which codecs you need to play back select media files on your system."
—www.ghacks.net
—http://preview.tinyurl.com/lwaunly

TECH EXPERT MAKES POINT ABOUT (BAD) SECURITY
IN THE INTERNET OF THINGS BY HACKING A PRINTER TO RUN DOOM

"Like many modern devices, the printers in question have an interface that can be accessed remotely via a web connection. So if you're upstairs and the printer is downstairs, or if you're at work and the printer is giving someone else at home some grief, you can look into it. Very convenient. But also very accessible by anyone at all if not properly secured. And it wasn't. "The web interface has no username or password on it," Jordon told the BBC, let alone any stronger encryption. And from there, he discovered that users could use the web interface to remotely update a printer's firmware."
—consumerist.com
—http://preview.tinyurl.com/lu7cyns

THE BEST FREE RSS READERS FOR WINDOWS

"Desktop RSS readers work similar to mail clients. You add one or multiple feeds to them and whenever you start them, see which sites have published new posts."
—http://www.ghacks.net/2014/09/17/the-best-free-rss-readers-for-windows/

DID YOU KNOW YOU HAD DIABETES? IT'S ALL OVER THE INTERNET

"In a year when former National Security Agency contractor Edward Snowden's revelations about the collection of U.S. phone data have sparked privacy fears, data miners have been quietly using their tools to peek into America's medicine cabinets. Tapping social media, health-related phone apps and medical websites, data aggregators are scooping up bits and pieces of tens of millions of Americans' medical histories. Even a purchase at the pharmacy can land a shopper on a health list."
—www.bloomberg.com
—http://preview.tinyurl.com/qxxwv2f

HOW TWO MEN UNLOCKED MODERN ENCRYPTION

"A public key system depends on relatively simple mathematical operations that are easy to perform and easy to reverse with the key information but extremely time consuming and difficult to reverse engineer without it. (For example, RSA, a more complete public key system conceived by a team of researchers at MIT shortly after Diffie and Hellman presented their idea, involved the two prime factors of a 125 or 126 digit number: It's almost impossible to derive the two factors from the resulting number.) Because it's so difficult to reverse engineer these operations, the key that encodes the material can be shared on insecure channels. Using the public key, anyone can encode information and send it on, but only the holder of the private half of the key could decrypt it."
—http://www.theatlantic.com
—http://preview.tinyurl.com/qg2esbp

THE HIDDEN WORLD OF FACEBOOK "LIKE FARMS"

"In recent years, a secret industry has emerged that sells likes to anyone willing to pay. These paid services inflate the interest in a Facebook page using "like farms" that generate likes on demand. Little is known about these services or how they generate likes. In particular, nobody is quite sure whether the likes come from automated bots or from paid human workers."
—http://www.technologyreview.com/
—http://preview.tinyurl.com/q46ajaf

INSIDE GOOGLE'S AMBITIOUS PLAN TO CHANGE THE INTERNET FOREVER

"For the overwhelming majority of residential broadband services around the world, upload and download speeds are [asymmetrical, that is] far from equal. According to online connectivity information service NetIndex, average global download speeds are twice as fast as upload speeds. In the United States, the gap is even bigger, with downloads clocking in at nearly 30 megabits per second, and uploads only hitting about 9 mbps. In certain instances, the differential can be as large as a factor of 10.

Google has teamed up with nonprofits and government agencies at both the local and federal levels to promote and develop applications that take advantage of the next generation of symmetrical [(equal up and down rates)] broadband networks Google and a growing number of its ISP "competitors" have started to roll out."
—http://kernelmag.dailydot.com/
—http://preview.tinyurl.com/optz26z

AS THE SEAS RISE, A SLOW-MOTION DISASTER GNAWS AT AMERICA'S SHORES

"WALLOPS ISLAND, Virginia – Missions flown from the NASA base here have documented some of the most dramatic evidence of a warming planet over the past 20 years: the melting of polar ice, a force contributing to a global rise in ocean levels.

The Wallops Flight Facility's relationship with rising seas doesn't end there. Its billion-dollar space launch complex occupies a barrier island that's drowning under the impact of worsening storms and flooding.

NASA's response? Rather than move out of harm's way, officials have added more than $100 million in new structures over the past five years and spent $43 million more to fortify the shoreline with sand. Nearly a third of that new sand has since been washed away."
—www.reuters.com
—http://preview.tinyurl.com/kqqojj4

ATCSCC ADVZY 020 DCC/ZAU 09/26/2014 ZAU GROUND STOP

" On Friday morning, Brian Howard, a contract employee of the FAA and holding full credentials to the ZAU datacenters, set a fire in the telecom room, destroying 23 of the 29 racks and disconnecting all the controller stations from the associated radars and radio transmitters needed to watch and guide traffic through the busy sector. As the consoles dropped offline, the ZAU duty manager had no choice -- they called ZZZ, the FAA command center and reported ATC ZERO -- no controllers available, control center offline."
—www.metafilter.com
—http://preview.tinyurl.com/lo8mztx

NASA TO REFORMAT MARS ROVER'S MEMORY
FROM 125 MILLION MILES AWAY

"NASA's long-running Mars rover Opportunity is going to have its memory reformatted in an attempt to resolve a series of recurring errors that have been interrupting its work for a day or two at a time with some frequency over the last month. The rover, which is now over 10 years old and well beyond its original mission lifetime, reset itself over a dozen times last month because of what NASA says is likely an issue with worn-out flash memory that it's attempting to store data in. Pieces of flash memory can wear out after repeated use, and it's possible that the rover is still attempting to use these worn-out parts of its memory."
—www.theverge.com
—http://preview.tinyurl.com/leb3e47

CALCULATING THE SPEED OF LIGHT

At about 1120 pm on August 6, 2012, as the Curiosity Rover was landing on Mars, a friend called to ask how far away it was. We both knew that it took a long time for radio signals to travel between here and there. So I did some figuring in my head (faster than it takes to write or read this).

Method 1 (brute force, what I used that night)**:** As I recall it, radio signals were taking about 20 minutes to travel the distance. We all know (don't we) that light's speed (the "c" in Einstein's famous equation) is !86,282 miles/sec. For in-head calculations, that's 200k miles/sec. So, light/radio moves along at about 200k *60miles/minute. That's about 12,000k miles/minute. Multiplying that by the 20-minute transit time, I got 240,000k (240 Million) miles. Subtracting 10% (24 M miles) to correct for my initial esti-mate, I came up with about 216 M miles). Converting my numbers to other units, I have light travelling at—
- 12 M miles/minute.-.10% = 10.8 Million Miles/minute
- 11 M miles/minute * 60 = 660 million MPH.

Method 2 (getting lazier)**:** After exercising my hesd via Method 1, I realized that light takes about 8 minutes (actually about 8 minutes and 19 seconds) to cover the about 93-Million-mile distance, the numbers work out to—
- 11.5 Million miles/minute
- 690 Million miles/hour

Method 3 (getting even lazier, and perhaps smarter)**:** Gsearch—
- [light speed miles/minute] — the speed of light = 11 176 943.8 mile / minute
- [light speed miles/hour] — the speed of light = 670 616 629 mile / hour

◀ *(Continued from page 16)*

And, we also know, thanks to the late Admiral Grace Hopper, that light travels 11.80 inches in a nanosecond. — http://en.wikipedia.org/wiki/Grace_Hopper#Anecdotes

Continuing in this vein—which is faster, a furlong per fortnight or an Angstrom per nanosecond? Gsearching [furlong/fortnight in angstrom/nanosecond] tells us
1 furlong / fortnight = 0.00166309524 angstroms / nanosecond. Or, the other way around—1 angstrom / nanosecond = 601.288475 furlongs / fortnight. In mph, it's
1 angstrom / nanosecond = 0.223693629 miles / hour.

"The fastest moving species of land snail is probably the common garden snail (Helix aspersa), which moves at 0.03 miles (158.5 feet or 48.3 meters) per hour."
—http://topics.info.com/How-fast-is-a-snails-pace_631
—gsearch—http://preview.tinyurl.com/oy6lrm5

HOW DUST MIGHT MAKE DROUGHT WORSE (OR A BIT BETTER) IN CALIFORNIA

"As the state's historic drought drags on, scientists are watching the Sierra snow with intense interest—and they're worrying that even tiny airborne particles of dust may have a big effect on water supplies."
—http://news.nationalgeographic.com
—http://preview.tinyurl.com/mktookf

HOW A 19TH CENTURY MATH GENIUS TAUGHT US THE BEST WAY TO HOLD A PIZZA SLICE

"Strength through curvature is an idea that shapes our world, and it has its roots in geometry. So the next time that you grab a slice, take a moment to look around, and appreciate the vast legacy behind this simple pizza trick
—http://www.wired.com/2014/09/curvature-and-strength-empzeal/

THE HAZARDS OF GOING ON AUTOPILOT

"With the move toward automation seemingly inevitable, Congress requested that NASA research the effects of the changes on pilots.

Leading the charge at NASA's Ames Research Center was Earl Wiener, a pioneer of human-factors and automation research in aviation. Wiener had been studying flight records in the years since automation was first introduced into the cockpit. Beginning in the nineteen-seventies, he published a series of papers that analyzed the interplay among automation, pilot error, and accidents. By the early nineteen-eighties, he had concluded that a striking number of innovations designed to address the perceived risk of human error had, in fact, led to accidents. Among the most notorious examples he cited was the 1983 crash of Korean Air Lines Flight 007, which was shot down by the

Soviet Union after veering three hundred miles off course. The official report attributed the crew's "lack of alertness" as the most plausible cause of the navigational error. Such inattention, the report went on to say, was far from unique in civilian-aircraft navigation."
—www.newyorker.com
—http://preview.tinyurl.com/n8ute6s

TIME TRAVEL SIMULATION RESOLVES "GRANDFATHER PARADOX"

"What would happen to you if you went back in time and killed your grandfather? A model using photons reveals that quantum mechanics can solve the quandary—and even foil quantum cryptography . . . Recent experiments offer tentative support for time travel's feasibility—at least from a mathematical perspective. "
—www.scientificamerican.com
—http://preview.tinyurl.com/me5bo9l

WHY ONE WEST VIRGINIA TOWN BANNED CELL PHONES

"Green Bank has become a cell-free zone—in the name of science.

In the early days, patrolling the radio blackout was a fairly simple task. Malfunctioning electronics in the community caused most interference, so Holstine could personally knock on the door, explain the problem, and fix it. "We'd try to replace the faulty part or we would fix their appliance or fix their fence," Holstine said.

But the wireless revolution changed things. Interference has become a daily occurrence, as objects that most Americans take for granted—such as remote controls and microwaves—are airwave mischief-makers. "Most people don't think about these kinds of things, but we have to think about them all the time," Holstien said. "Basically anything you have that is electronic is a source of radio-frequency radiation.""
—www.citylab.com
—http://preview.tinyurl.com/kazbnny

WHO IS RUNNING PHONY CELL PHONE TOWERS
AROUND THE UNITED STATES?

"Though the F.B.I. has been using a basic mobile phone interceptor that tracks phone location, known colloquially by the brand name of "Stingray" since at least 2008, federal, state, and local officials have tried to say as little as possible about use of the technology, even in court proceedings. This angers civil libertarians such as the Electronic Frontier Foundation (EFF) and the American Civil Liberties Union (ACLU), who view the use of interceptors without a warrant as an unlawful search. The government's silence has helped generate an information vacuum filled by conspiracy theory:

one fringe news site recently claimed that the interceptors are a source of "smart grid mind control" made possible by "voice to skull technology.""
—www.popsci.com
—http://preview.tinyurl.com/kbfe2l7

THE BRIEFCASES THAT IMITATE CELL PHONE TOWERS

"Law enforcement agencies around the country can track and monitor telecommunications thanks to an FCC-approved device. . . .The Stingray is a briefcase-size device manufactured by Florida-based telecommunications company Harris Corporation. The purpose of the Stingray is to imitate a cell-phone tower—forcing all nearby phones to attempt to connect with it. When phones do try to connect, the Stingray logs the information on that phone, everything from location information to the metadata that reveals what phone numbers you've been texting and calling."
—www.theatlantic.com
—http://preview.tinyurl.com/psdvvus

STINGRAY COMES UP FOR A SNACK, FORGETS ABOUT THAT WHOLE 'AIR' THING

This item came up about the same as the "Stingray" items above. [—jb]
—http://digg.com/
—http://preview.tinyurl.com/k9xcrj3

TECH FIRM TRIES TO PULL BACK CURTAIN ON SURVEILLANCE EFFORTS IN WASHINGTON

"Known as IMSI catchers, for the unique identifying phone code called an IMSI, the surveillance devices trick mobile phones into thinking they have logged onto legitimate cell networks, such as Verizon or AT&T, when in fact the signals have been hijacked."
—www.washingtonpost.com
—http://preview.tinyurl.com/pc2geg5

IBM SELECTRICS

"IBM's Selectric typewriter "paved the way for computer printers because the Selectric had an early version of a digital to analogue converter..." called the whiffletree, the application of which here is totally sweet."
—http://www.metafilter.com/143124/Have-You-Ever-Been-to-Selectric-Personland

THE CREATORS PROJECT

"The Creators Project is a global celebration of art and technology. Founded by a revolutionary partnership between Intel and VICE, The Creators Project celebrates visionary artists across multiple disciplines who are using technology in innovative ways to

push the boundaries of creative expression. We seek to inspire new and emerging artists by showcasing the infinite possibilities presented by the advancement of modern technology. The Creators Project is proud to have showcased more than 500 artists from all around the world.
—http://thecreatorsproject.vice.com/about

WHY DO WE BLINDLY SIGN TERMS OF SERVICE AGREEMENTS?

"NPR interviews Omri Ben Shahar, teacher of contract law at the University of Chicago and co-author of the book, "More Than You Wanted To Know: The Failure Of Mandated Disclosure." His advice: "You shouldn't bother reading those terms and conditions. Don't even try. You don't have enough time in the year. Don't feel guilty about it. What you should do is follow some of these watchdog and watch groups that circulate information about particularly annoying new practices.""
—http://www.metafilter.com/
—http://preview.tinyurl.com/l2qp3n6

IS THERE A CREATIVITY DEFICIT IN SCIENCE?

"We are all very lucky that Berners-Lee was in a time and place that gave the young engineer some latitude to pursue his vague but creative idea, one that would ultimately change the world. If Berners-Lee submitted that idea to government funding agencies for support, who knows where the Internet would be today?"
—http://arstechnica.com/science/2014/09/is-there-a-creativity-deficit-in-science/

WHY A DEAD BATTERY BOUNCES

"You already know that alkaline batteries give you electricity by way of a chemical reaction. But did you also know that reaction changes the way batteries behave when dropped, allowing you to easily test if they're still good?"
—http://digg.com/video/dead-battery-bounce-test

THE UNSTOPPABLE TI-84 PLUS: HOW AN OUTDATED CALCULATOR STILL HOLDS A MONOPOLY ON CLASSROOMS

"In the ruthlessly competitive world of technology, where companies rush the latest gadget to market and slash prices to stay competitive, the TI-84 Plus is an anomaly.

Texas Instruments released the graphing calculator in 2004, and continues to sell it today. The base model still has 480 kilobytes of ROM and 24 kilobytes of RAM. Its black-and-white screen remains 96×64 pixels. For 10 years its MSRP has been $150, but depending on the retailer, today it generally sells for between $90 and $120. The only changes have come in software updates."
—www.washingtonpost.com
—http://preview.tinyurl.com/mb2o546
—gsearch—http://preview.tinyurl.com/k8h4p2u

THE MILKY WAY'S 'CITY' JUST GOT A NEW NAME

"Astronomers sometimes think of galaxies as being like massive neighborhoods, using gravity to bind stars, dust, and dark matter. As neighborhoods, they don't sprawl. Rather, they're found within groups of dozens of other galaxies, and those groups within massive "superclusters" that contain hundreds of galaxies, all interconnected by a network of thread-like baryonic matter.

Now, our own galactic megalopolis has a name: "Laniakea," meaning "immense heaven" in Hawaiian. An international team of astronomers, led by renowned scientist R. Brent Tully, has defined the supercluster of galaxies containing the Milky Way, publishing their work today in Nature."
—www.citylab.com
—http://preview.tinyurl.com/lalkjtz

THE COMPLEXITY OF WHAT WE ARE SEEING IS OVERWHELMING

"Astronomers discover that our galaxy is a suburb of a supercluster of 100,000 large galaxies they have called Laniakea"
—http://www.metafilter.com
—http://preview.tinyurl.com/oc8v4j8

CHATTANOOGA'S GIG:
HOW ONE CITY'S SUPER-FAST INTERNET IS DRIVING A TECH BOOM

"Thanks to an ambitious roll-out by the city's municipally owned electricity company, EPB, Chattanooga is one of the only places on Earth with internet at speeds as fast as 1 gigabit per second – about 50 times faster than the US average. . . . Chattanooga's success is all the more remarkable because it almost didn't happen. The cable companies sued twice to stop it getting off the ground. It's a story that has been repeated across the US where the cable companies have successfully lobbied for legislation in 19 states that ensures that municipal utilities cannot offer broadband internet.:"
—www.theguardian.com
—http://preview.tinyurl.com/lfc8882

NAPA QUAKE FORCES REDRAWING OF FAULT MAPS

"The 6.0 quake has provided an instant laboratory for geologists and seismologists, whose prior knowledge of the West Napa Fault Zone was sketchy at best. One thing that's already emerged is that the fault that triggered the 6.0 temblor is longer than they realized. "The earthquake has helped to identify some pieces of it that are clearly active," says Schwartz. That's important because prior to the shaking, all scientists knew of many area faults was that they had been active sometime within the last 130,000 years."
—http://blogs.kqed.org
—http://preview.tinyurl.com/nrmwzlr

THE CASE FOR KILL SWITCHES IN MILITARY WEAPONRY

"An immediate worry is that a kill switch might not work when it is supposed to. An even bigger concern is that it might work when it is not supposed to—for example, if it is hacked by an enemy. There is a reason tank operators start their vehicles with a switch requiring no ignition key or code—it is too easy to misplace or become separated from keys on a battlefield, even at the cost of unauthorized access.

But ignition keys represent the best technology of 1949. Today there are many more possibilities. At least one foreign policy analyst has suggested incorporating GPS limitations into Stinger surface-to-air missiles to assist the Free Syrian Army in its defenses against air attack while ensuring that the missiles are useless outside that theater of conflict. More simply, any device with onboard electronics, such as a Stinger or a modern tank, could have a timed expiration; the device could operate after the expiration date only if it receives a coded "renew" signal from any of a number of overhead satellites. The renewal would take effect as a matter of course—unless, say, the weapons were stolen. This fail-safe mechanism could be built using basic and well-tested digital signature-and-authentication technologies. One example is the permissive action link devices by which American nuclear weapons are secured so that they can be activated only when specific codes are shared. Another involves the protocols by which military drones are operated remotely and yet increasingly safeguarded against digital hijacking."
—www.scientificamerican.com
—http://preview.tinyurl.com/oh4gbt5

COMPUSERVE IN 1994:
HERE, YOU'LL NEVER OUTGROW 60 E-MAILS PER MONTH

"Decades ago, our ancestors would purchase or receive in the mail "magazines," primitive information delivery devices printed on shiny paper. Most of these magazines featured advertisements for products and services. In 1994, an ad for Popular Mechanics promoted CompuServe, a service that you could dial into with your modem. One that connected you to news, sports, weather, shopping, information, and included sixty e-mail messages per month. Sixty!"
—consumerist.com
—http://preview.tinyurl.com/ovmmslm
—gsearch—http://preview.tinyurl.com/ppo97np

THE EMERGENCE OF DIGITAL NATIVES -
HOW WILL THEY RESHAPE OUR WORLD?

"How will digital natives reshape our world? The potentials are endless and it all depends on one's imagination. Take for example a cookbook. Wouldn't it be great if one could watch Barefoot Contessa make that scrumptious chocolate cake right in front of

us? We don't just read about the recipe but we actually watch a step-by-step demonstration of how to prepare the ingredients. The same goes for a book about knitting – the patterns could be printed out and then one could follow along and learn how to knit. If we miss something we could rewind and re-watch."
—Santa Clara County Library — sccl.org
—http://preview.tinyurl.com/l6t4url

THE MAN WHO WILL BUILD GOOGLE'S ELUSIVE QUANTUM COMPUTER

"Martinis and his team have been focused on stability of quantum computers, one of the biggest issues in this field of research. Quantum computers rely on particles that are in what's called a quantum state, meaning that they can be two different states at once, or even some combination of the two. The problem is that these particles, called qubits, typically stay in a quantum state for only a fraction of a second, and interference from other particles can easily be knocked out of this state. Researchers call this loss of quantum information "decoherence," and it's made it hard to make any reliable calculations with a quantum computer. But Martinis and company are making some progress in this area."
—http://www.wired.com/2014/09/martinis/

COTTON VS. POLYESTER:
WHICH GYM CLOTHES TRAP THE MOST BODY ODOR?

"The most common known cause of malodor is a family of skin microbes in the genus Corynebacterium; however, the scientists couldn't spot any on sweaty gym gear. Rather they found that soiled polyester shirts wound up harboring more Micrococci bacteria, a type of odiferous germ, than cotton shirts. The result was surprising because Micrococci don't generally grow in pits."
—www.popsci.com
—http://preview.tinyurl.com/l64crem

HOW FUJIFILM CAME TO THE EBOLA FIGHT

"Toyama Chemical, a pharmaceutical company that Fujifilm acquired, [is] offering up the drug Favipiravir as a potential stopgap in the fight against Ebola.

The Fujifilm subsidiary's small yellow tablets are marked with a Japanese rendering of the brand name Avigan. They inhibit the replication of viral genes within an infected cell, while also mitigating their ability to spread from one cell to another—a two-pronged approach to fighting influenza that Fujfilm says is unique. The drug was approved in March by Japan's health ministry as a treatment for both novel and reëmerging forms of influenza, but researchers have theorized that it could be an effective emergency treatment for Ebola.

Avigan offers new hope because, since it received regulatory approval for sale in Japan in the spring, it has been manufactured on a much larger scale than the experimental drugs being developed specifically for Ebola.

Also distinguishing Avigan from other experimental Ebola treatments and vaccines is the fact that its primary purpose is to combat influenza. That's important because, as James Surowiecki wrote in the August 25th issue of [The New Yorker], pharmaceutical companies have few economic incentives to develop single-dose drugs targeting diseases that mostly impact impoverished people in developing nations. "
—http://www.newyorker.com/business/currency/fujifilm-making-drug-treat-ebola

DETROIT FIRE DEPARTMENT HAS ALERT SYSTEM
MADE OF POP CANS, DOORBELLS

"Detroit is so broke that firefighters get emergency alerts through pop cans, coins, door hinges, pipes and doorbells. And they make these gizmos themselves — one involving a pop can that gets tipped over by an incoming fax. The clink of the can means there's an emergency. Then there's the chain-reaction gadget: a fax hits a door hinge, which then tugs on a wire, which then sets off a doorbell."
—http://www.freep.com/article/20140905/NE WS01/309050185/Detroit-fire-pop-can-fax

SCIENCE AND TECHNOLOGY LINKS

I (jb) am going to be lazy (lazier?) here. Rather than provide details of the many Science and Technology items available via NPR, PBS, BBC, etc., I'll just provide the links and let you have the enjoyment of mining for nuggets.
—NPR Science—http://www.npr.org/sections/science/
—NPR Technology—http://www.npr.org/sections/technology/
—PBS Science—http://www.pbs.org/topics/science-nature/
—PBS Technology—http://www.pbs.org/topics/technology/
—BBC Future—http://www.bbc.com/future/
—phys.org—http://phys.org/
—Popular Science—http://www.popsci.com/

ID THIEVES DON'T NEED PINS TO WITHDRAW CASH
FROM DEBIT CARDS STOLEN FROM HOME DEPOT

"With some 2,200 stores in the U.S. alone, most people don't have to travel far to find a Home Depot. That means there is a good chance that many Home Depot shoppers live in the same ZIP code as their store. Having that information, an ID thief versed in black market information can illegally purchase additional info like Social Security numbers and dates of birth. So with all that information at their fingertips, an ID thief can try changing a card's PIN using the automated customer service phone lines that many banks operate. If a customer calls up and can provide almost all of the requested data about the account, he or she can change the PIN rather easily.
—consumerist.com
—http://preview.tinyurl.com/nou76gw

HOW WELL DO YOU KNOW THE WORLD? PLAY GEOGUESSR TO FIND OUT!

"Think you're a geography expert? Test your knowledge with BBC Travel's Geoguessr – the game that proves how well you know the world! First, move around using your mouse and figure out where you are. Then click on the map in the lower right hand corner to place your marker (zoom in to increase your accuracy). When you're sure, click the "make a guess" button, and find out how close you were! Once you've mastered the basics, set a time limit or challenge a friend. The world's a huge place – get exploring!

[BBC] Editor's Note: The game is supported in IE9, Firefox and Chrome. IE8 and earlier is not supported."
—www.bbc.com
—http://preview.tinyurl.com/mlav6py

THE WAR OF ZEROS AND ONES

"With cyberweaponry still in its infancy, it's still too early to map its full impact. In the early days of aircraft, military planners laid down a number of predictions. Some proved right, like the idea that planes would bomb cities, while others proved woefully wrong—for example, the notion that the craft would render all other forms of war obsolete."
—http://www.popsci.com/article/technology/war-zeros-and-ones?nopaging=1

WHY WE HAVE BLIND SPOTS —
AND HOW TO SEE THE BLOOD VESSELS INSIDE YOUR OWN EYE

Youtube video
—digg.com
—http://preview.tinyurl.com/mygfpcf

THE COMPANIES VYING TO TURN ASTEROIDS INTO FILLING STATIONS

"Private companies want to mine asteroids for fuel, and build filling stations in space. A bill now in front of the US Congress would help by allowing them to own what they discover - but it might, if passed, meet stiff international opposition."
—http://www.bbc.com/news/magazine-29334645

THIS FISH SPITS LIGHT

"The see-through cardinalfish evolved in lockstep with tiny little crustaceans called ostracods. The millimeter-long creatures sometimes get swallowed by the fish while they're looking for their actual food: plankton. To avoid passing through the digestive system of the fish, the ostracods evolved a brilliant defense: they light up. Since the cardinalfish is translucent, their glowing bodies turn them into easy targets for their

own predators. Once the fish realizes that it's turned into a tasty fireworks parade, it spits the ostracod out and both critters can get on with their lives."
—animals.io9.com
—http://preview.tinyurl.com/ndcyrvv

WITH GENETIC TESTING, I GAVE MY PARENTS THE GIFT OF DIVORCE

" . . . at the very bottom of your profile, there's a little box that says "check this box if you want to see close family members in this search program." [Note: 23 and Me has since switched to an opt out system, where users will automatically be enrolled in the close relatives finder program.]
—www.vox.com
—http://preview.tinyurl.com/nd7mnku

HOW FAKE IS FOOD STYLING?

"Decades ago, food styling was widely considered a form of visual trickery. A stylist's job is to buy, cook, and arrange food for the camera, but the profession is better known for making food look unrealistically beautiful, and totally inedible--conning viewers with fake grill marks drawn in eyeliner and uncooked poultry painted to look just-out-of-the-oven."
—http://www.fastcodesign.com/3034644/food-week/how-fake-is-food-styling#1

THE RISE AND FALL OF THE FIREMAN'S POLE

"Whereas the fireman's pole was once an iconic fixture at every major firehouse, it is increasingly being replaced today. With the advent of motorized vehicles and fire trucks, horses were phased out and there was no longer a need to have multi-level stations. Continued deaths and injuries, despite safety installations, have also led officials to reconsider the fireman pole's role in the modern era. Harold Schaitberger, general president of the International Association of Firefighters, elaborated in an interview with The New York Times:"
—http://priceonomics.com/the-rise-and-fall-of-the-firemans-pole/

INVENTING THE LED LIGHTBULB

"In 1962, when he was 33, the scientist Nick Holonyak, Jr., created the first practical visible light-emitting diode. At GE, they called it "the magic one." Someone actually wrote that on the back—here's Holonyak showing the little diode (we're skipping over some bits of the video, but if you want to see Holonyak's whole story watch the whole thing):"
—www.theatlantic.com
—http://preview.tinyurl.com/n4bzgs6

DEEP MISSION: JAPAN TAKES AIM AT THE SOURCE OF MEGAQUAKES

"In 2016, Japan hopes to complete a nine-year mission to drill into the heart of the Nankai Trough, a 500-mile-long fault that threatens some of the country's most populous areas. The borehole will extend more than three miles into the Earth's crust, shattering the record for scientific drilling in the ocean.

 Only Japan would bankroll such complex and costly seismic research. In a country rattled by more than a thousand sizable earthquakes every year, no threat is more pressing. But the results unearthed by Chikyu will also be relevant to the U.S. Pacific Northwest, where an offshore fault called the Cascadia Subduction Zone stretches from Vancouver Island to Northern California. "Cascadia and Nankai are so strikingly similar, we call them sister subduction zones," said Kelin Wang of the Geological Survey of Canada. "By studying Nankai, we North Americans will benefit, too."
—http://phys.org/news/2014-09-deep-mission-japan-aim-source.html

WHY DID THIS WOMAN USE PHOTOSHOP
TO CONVINCE HER FAMILY SHE WENT ON A TRIP TO SOUTH EAST ASIA?

"Only after her 'return home' was the secret revealed – that she had been at home all along. The ruse was all part of a university project."
—http://www.visualnews.com
—http://preview.tinyurl.com/mckpd77

NUDE PHOTOS OF JENNIFER LAWRENCE AND KATE UPTON LEAK:
FIVE IMPORTANT LESSONS FOR ALL OF US

"Of course, the best place to store sensitive material is on machines not hooked up to the internet. If such a scenario is impractical, at least keep the machine secure with proper security software, encryption, passwords, etc. One more recommendation: Even if you choose to ignore the prior ideas, if you have sensitive photos or other materials stored on iCloud, I would remove them ASAP, at least until all the dust settles regarding whether a vulnerability exists and was successfully exploited. You don't want to find out the hard way."
—www.forbes.com
—http://preview.tinyurl.com/oqsgvmn

DIGITAL PAINTINGS USING GOOGLE MAPS AS REFERENCE

"Christian Lonsdale has a different way of painting the world – he does it from his home, traveling the globe using Google Maps and digitally painting the fantastic places he finds. After locating a suitable place captured in panoramic form (it could be anywhere from Iceland to Tasmania), he selects a good perspective, sits down with Photo-

shop and a pen tablet, and paints what he sees. It's a far cry from painting in situ, but it does demonstrate a creative way to get a custom view of the world, regardless of your location or frequent flyer status."
—http://www.visualnews.com
—http://preview.tinyurl.com/mbg25jf

TESTING THE ACCURACY OF THE FLIR ONE

"In my [Rhett Allain] review of the FLIR One, I mentioned that this would be an excellent device for a physics lab. So, here is my first "lab", hopefully there will be more posts like this. The FLIR One Tech Specs states the camera can detect temperature differences down to 0.1°C. However, detecting temperature differences and measuring temperatures are two very different things."
—http://www.wired.com/2014/09/testing-accuracy-flir-one/

WHO MADE THAT WINDSHIELD WIPER?

"Anyone who's ever driven in a rain or snow storm can attest to the dire importance of windshield wipers. What a lot of people don't know is that windshield wipers were invented by a woman. Inventor Mary Anderson received a patent for her car-window cleaning device in 1903."
—http://www.women-inventors.com/Mary-Anderson.asp
—gsearch—http://preview.tinyurl.com/q2qk4cx

THIS IS THE CAFE WALL ILLUSION

"The café wall illusion is a geometrical-optical illusion in which the parallel straight dividing lines between staggered rows with alternating black and white "bricks" appear to be sloped."
—twistedsifter.com
—http://preview.tinyurl.com/n6ad4fj

COMCAST DECIDES ANYONE USING ULTRA-PRIVATE BROWSER [TOR] IS PROBABLY A CRIMINAL, THREATENS TO KILL THEIR CONNECTIONS

"According to DeepDotWeb, one Tor user was told by a Comcast representative, "Users who try to use anonymity, or cover themselves up on the internet, are usually doing things that aren't so-to-speak legal. We have the right to terminate, fine, or suspend your account at anytime due to you violating the rules.""
—consumerist.com
—http://preview.tinyurl.com/kubxl9v

THE RISE OF THE ANTI-FACIAL RECOGNITION MOVEMENT

"In [August 2014], the FBI caught a fugitive who had been on the run for over a decade, thanks to a positive match between an old passport photo and a Nepalese visa application. In the same week, researchers in China claimed to have developed a kit that can match faces with up to 99.15 percent accuracy, even when dealing with various camera angles and lighting environments. More recently, another team from China has boasted 99.8 percent accurate results, after working on a database that contains 50 million Chinese faces."
—http://kernelmag.dailydot.com/
—http://preview.tinyurl.com/mrgvbfx

THE FBI JUST FINISHED BUILDING ITS FACIAL RECOGNITION SYSTEM

"The FBI's Next Generation Identification (NGI) system is now fully operational, after more than three years of development. The bureau announced today that development on the project is complete, and it would be rolling out new features for ongoing criminal notifications as well as a controversial facial recognition feature called the Interstate Photo System, or IPS. IPS will serve as "an image-searching capability of photographs associated with criminal identities," according to the release."
—www.theverge.com
—http://preview.tinyurl.com/krz5p5m

THE PERFECT HANDCUFF KEY FOR EVERYDAY CARRY

"TIHK is a patent pending handcuff key that utilizes an integrated clip for easy attachment to your clothing so it is ready when needed. Its minimal, low-profile design and low-visibility coating ensure that it can be carried inconspicuously and go undetected when detained. Designed to fit all standard "peerless" style handcuffs. . . . TIHK was born out of the need for a simple-to-attach handcuff key. In 2013 this idea was brought to market and with the help of the IndieGoGo crowdfunding platform. TIHK is proudly Made in the USA.

The TIHK is to only be used to counter illegal detainment and in accordance with all local, state and federal laws by trained law enforcement, military and security professionals. Improper use by civilians is not endorsed or encouraged. Use of the product is at your own personal risk and discretion."
—http://tihk.co/?utm_source=digg

UNCOVERING HIDDEN TEXT ON A 500-YEAR-OLD MAP
THAT GUIDED COLUMBUS

"[The map Christopher Columbus probably used] as he planned his first voyage across the Atlantic in 1492 . . . represents much of what Europeans knew about geography on the verge [of] discovering the New World, and it's packed with text historians would

love to read—if only the faded paint and five centuries of wear and tear hadn't rendered most of it illegible.

But that's about to change. A team of researchers is using a technique called multispectral imaging to uncover the hidden text. They scanned the map last month at Yale University and expect to start extracting readable text in the next few months, says Chet Van Duzer, an independent map scholar who's leading the project, which was funded by the National Endowment for the Humanities."
—http://www.wired.com/2014/09/martellus-map/

IS YOUR BODY MOSTLY MICROBES? ACTUALLY, WE HAVE NO IDEA

"How one eccentric scientist's estimate became the most famous "fact" about the microbiome. . . The oft-cited 10-to-1 figure is almost certainly inaccurate. It's a crude estimate from 1972 that established itself as a fact through repetition and generations of citations. As such, it reveals the staying power of convenient falsehoods—and how an obscure scientist who left a peculiar legacy has been cited by top researchers for decades. . . . Where did the figure originate? The long trail of citations dead-ends in a curiosity: a paper by Thomas D. Luckey, a microbiologist who made his calculations in 1972 based on 1 gram of feces. The paper was presented as part of a visionary symposium he convened that helped set the field of intestinal microecology in motion."
—www.bostonglobe.com
—http://preview.tinyurl.com/pyecrwb

THE NEW ALCHEMY:
HOW SELF-HEALING MATERIALS COULD CHANGE THE WORLD

"Scientists are cooking up asphalt, concrete, and metals that heal themselves. That means smarter and stronger infrastructure—and just a dash of magic. . . . These days, materials science takes a more rigorous multi-disciplinary approach to this sort of engineering. Materials scientists design and discover extraordinary variations on the metals, ceramics, and polymers we think we know. And lately, they're taking their cues from how the human body heals itself, transmuting those mechanics into asphalts, concretes, and metals that can mend their own cracks."
—www.citylab.com
—http://preview.tinyurl.com/n6robr4

WHAT IS THE UNIVERSE?
REAL PHYSICS HAS SOME MIND-BENDING ANSWERS

"Science says the universe could be a hologram, a computer program, a black hole or a bubble—and there are ways to check. . . . [Cosmology] is hard at work trying to decode the nature of reality by matching mathematical theories with a bevy of evidence. Today most cosmologists think that the universe was created during the big bang

about 13.8 billion years ago, and it is expanding at an ever-increasing rate. The cosmos is woven into a fabric we call space-time, which is embroidered with a cosmic web of brilliant galaxies and invisible dark matter.
—http://www.smithsonianmag.com
—http://preview.tinyurl.com/mlpo8rr

RETHINKING THE ORIGINS OF THE UNIVERSE

"By merging two seemingly conflicting theories, Laura Mersini-Houghton, a physics professor at UNC-Chapel Hill in the College of Arts and Sciences, has proven, mathematically, that black holes can never come into being in the first place. The work not only forces scientists to reimagine the fabric of space-time, but also rethink the origins of the universe."
—http://unc.edu/spotlight/rethinking-the-origins-of-the-universe/

THE CALCULUS OF CONTAGION

"From influenza to plague, the number of cases in a real epidemic often rises exponentially at first. After a while, the disease reaches a peak level, and then the number of new cases starts to decrease. When McKendrick and Kermack began their research, people generally gave two possible reasons for the decline. Either the epidemic faded away because the infection had become less potent over time, or because there were no susceptible people left – everyone had been infected and either died or become immune."
—http://aeon.co
—http://preview.tinyurl.com/mowz9wh

600 FREE e-BOOKS, INCLUDING A PHYSICS CLASSIC

"In 1964, Richard Feynman delivered a series of seven hour-long lectures at Cornell University. They were recorded by the BBC and in 2009 (with a little help from Bill Gates) were released to the public. The three-volume set may be the most popular collection of physics books ever written, and now the complete online edition has been made available in HTML 5 through a collaboration between Caltech (where Feyman first delivered these talks, in the early 1960s) and The Feynman Lectures Website.

The online edition has been designed for ease of reading on devices of any size or shape; text, figures and equations can all be zoomed without degradation. Volume I deals mainly with mechanics, radiation and heat; Volume II with electromagnetism and matter; and Volume III with quantum mechanics.

You'll find the lectures, ready to search and read, at http://www.feynmanlectures.caltech.edu/."
—www.techsupportalert.com
—http://preview.tinyurl.com/mbju2w6

SMARTPHONES ARE USED TO STALK, CONTROL DOMESTIC ABUSE VICTIMS

"Smartphones and GPS have transformed domestic violence shelters across the U.S. . . . Navarro says most of the people who come here don't already know. They're oozing data — from their phones, their tablets, their social media accounts — data that an abuser can access pretty easily."
—www.npr.org
—http://preview.tinyurl.com/k8vzdww

THE ULTIMATE RETALIATION:
PRANKING MY ROOMMATE WITH TARGETED FACEBOOK ADS

'It began innocently enough with me snagging the email address he had listed on his Facebook profile, adding it into an Excel worksheet, and exporting it as a .CSV file. I then used the Audiences tool in Power Editor to upload the file to Facebook as a Custom Audience labeled 'My Roommate'. You can do this with anyone's email address or, if you don't have that, you can very easily find their Facebook User ID using FindMy-FacebookID and use that. The wonderful, and devious, thing about this is that it doesn't matter if their profile is public or private – so long as it's searchable, you can get the UID. Again, just add it to an Excel worksheet, save it as a .CSV, select 'UID' for the Data Type and upload it as a Custom Audience.
—http://mysocialsherpa.com
—http://preview.tinyurl.com/pwebuph

ASK THE DECODER: STALKED BY SOCKS

"When 'delightfully curated' ads follow us around the Web. . . .TellApart advertising technology company that specializes in retargeting. Its website describes the strategy: "There are many reasons why the overwhelming majority of your site visitors do not complete a purchase ... TellApart delivers highly personalized display ads that are perfectly targeted with the intent of re-engaging those lapsed shoppers. . . . Understanding how these ads work might make us a little less creeped out. So how do TellApart and other retargeting advertisers "unlock the power of customer data?""
—http://america.aljazeera.com/articles/20 14/9/16/the-decoder-stalkedbysocks.html

THE PAYPAL MAFIA: WHO ARE THEY AND WHERE ARE
SILICON VALLEY'S RICHEST GROUP OF MEN NOW?

" The company founded by Peter Thiel, Elon Musk and Max Levchin has spawned three billionaires, many, many millionaires and generation-defining companies. Here, we break down the key players from the most notorious group in Silicon Valley."
—http://www.telegraph.co.uk/
—http://preview.tinyurl.com/nl6cqu4

BRAVE NEW PHONE CALL

"Ray Ozzie's new app Talko hopes to give people their voices back. . . . While Talko offers a number of compelling features, one in particular is destined for controversy: it stores all conversations by default. Unless you are being bugged by the FBI, the spoken words of a phone call have always disappeared as soon as the sound subsided. In that sense, traditional telephony is more ephemeral than Snapchat. But Talko calls are persistently available, like email or texts."
—https://medium.com/@stevenlevy/brave-new-phone-call-f4064a4e720f

NOW THAT CARS HAVE BLACK BOXES, AM I BEING TRACKED?

"Who gets access to the info in your vehicle's event data recorder (EDR)? There is no one EDR in your vehicle, but rather a number of electrical components that store data following a crash."
—www.popularmechanics.com
—http://preview.tinyurl.com/l34aerb

DEMILKED

"Demilked is a design, art, and photography magazine. We milk the world's most creative minds and serve you a tasty inspirational milkshake made of art, photography and design with a dash of magic and a dollop of creativity."
—http://www.demilked.com/

GUY ON THE STREET FINGER-PAINTS A SPECTACULAR VIEW IN JUST 9 MINUTES

"Street painters like the man featured in this video clip get written off by many of us as simple tourist traps, to be avoided on your way to wherever you're going. Sometimes that might be the case, but in this unnamed artist's case, it's not – they way he paints using just his hands and a few paint-soaked rags is almost unbelievable."
—http://www.boredpanda.com/speed-finger-painting/

UNLEASHING AN EPIDEMIC TO KILL THE TUMBLEWEEDS

"The fungi work against the tumbleweeds when they are saplings, so they don't have the chance to grow into large bushes, which would later dry out, snap off their roots, and roll around while dispersing their seeds."
—http://www.popsci.com/article/science/unleashing-epidemic-kill-tumbleweeds

INSIDE THE BUILDING WHERE APPLE TORTURES THE IPHONE 6

"Apple doesn't often show this facility to outsiders. The only reason I'm (Josh Lowensohn) here today is because Apple's latest iPhone, the iPhone 6, bends. At least for some people. The real question up until now is just how many people that's happening to, and whether that would happen during normal use in a human pocket."
—http://www.theverge.com/2014/9/25/6845611/inside-apples-iphone-6-torture-building

WHEN EVERYTHING WORKS LIKE YOUR CELL PHONE

"When a thing connects to the Internet, three things happen: it becomes smart, it becomes hackable, and it's no longer something you own.. . . . "Owning" a [mobile] phone is much more complex than owning a [toilet] plunger. And if the big tech players building the wearable future, the Internet of things, self-driving cars, and anything else that links physical stuff to the network get their way, our relationship to ownership is about to undergo a wild transformation. We won't own almost anything the way we own our plungers.

—www.theatlantic.com

—http://preview.tinyurl.com/l8ces25

WHO MADE THAT CHARCOAL BRIQUETTE?

"In the summer of 1919, a Michigan real estate agent named Edward G. Kingsford was invited on a camping trip by his wife's cousin, the industrialist Henry Ford. In addition to Ford, the adventurers included Thomas Edison, the tire magnate Harvey Firestone and the naturalist John Burroughs. Although the group called themselves the Vagabonds, they traveled with chauffeurs and a chef in a convoy of six vehicles, one of which was a fully equipped kitchen truck."

—http://www.nytimes.com/

—http://preview.tinyurl.com/np9gwtk