

# ComputerEdge™ Online — 08/16/13

## This issue: Teaching in the Digital Age, Visor Display Eyewear for Athletes, and More!



Mobile App Economy in 2013: PC on a phone and Driving Start-ups; New and Innovative Approaches to Teaching Science and Math; High Tech Education and Teacher Help in the Digital Age; Better Online Security against Third-Party Trackers; New Employment Tech: Balancing Life and Work through the Internet; More Work Place Tech: Helping the Disabled Land Jobs, and Phased Retirement; The Latest on Supercomputers; Google Glass: Ultimate Wearable Computer? Or Privacy Violator?; Other Innovative Visor Display Eyewear for Athletes.

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The Address Book app is changed for better editing, backup, and protection against accidental deletions. Some of these tricks apply to any AutoHotkey app. Plus, age calculation is added as a new feature.

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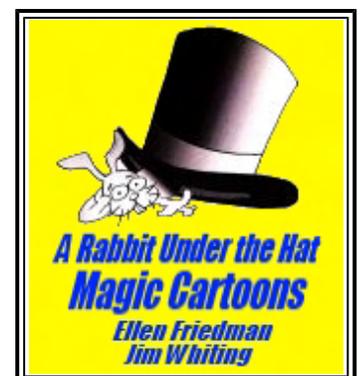
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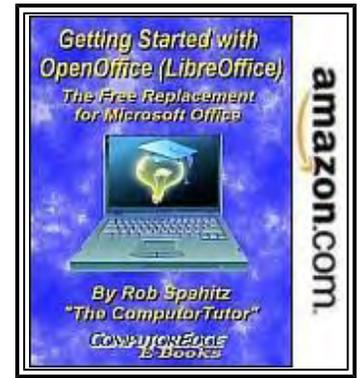


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## DEPARTMENTS:

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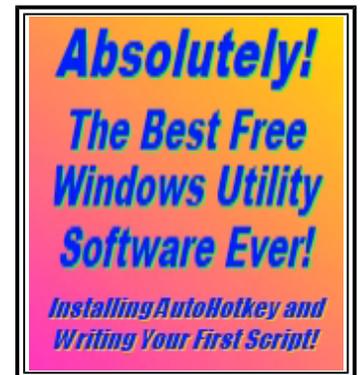
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An Introduction, Orientation,  
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**Jack Dunning**

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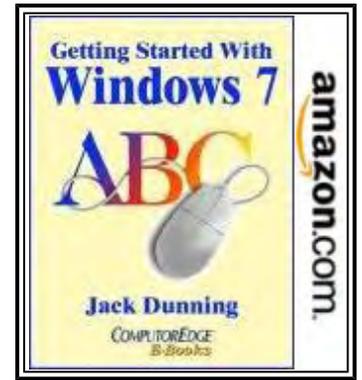
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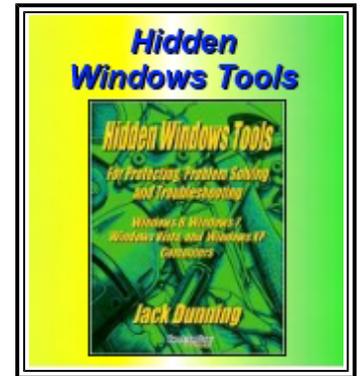
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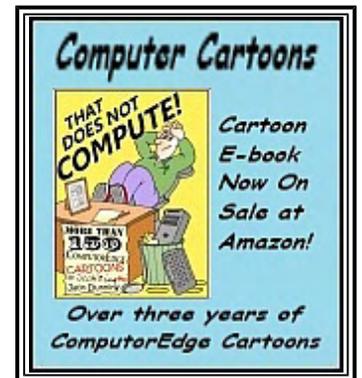
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## Digital Dave

“Digital Dave answers your tech questions.” by *Digital Dave*

Buying a New 17-inch Laptop; Filling in an Acrobat Document (PDF) Online; Wi-Fi Speed Bump.

Dear Digital Dave,

*I'm shopping around for a new or good used with warranty, 17-inch laptop for my girlfriend. She presently has a Gateway Centron 17-inch. It's getting a little old for the new technology. She uses Word and Photoshop and is on the Internet. I'm presently looking a Dell and Samsung I5 with 8 gigs of memory. But they seem a little pricey. I would appreciate any suggestion on some other brands that would be just as good. In the \$500 to \$600 range.*

Thanks in advance,

Ron Rosson  
Valley Center, CA

Dear Ron,

There are plenty of alternatives when it comes to laptop computers. I don't spend a lot of time worrying about brand names since the hidden parts often come from the same place. The variance in price is primarily due to the capabilities contained in the machine. With most brands you can reduce the price by eliminating those features you don't need.

In your case, since your girlfriend is using Photoshop, the 17-inch screen is important. The larger screen area makes any graphics work much easier. I would expect that you could get along with a little less memory, but again the 8 gigs would be good for photo manipulation.

With a quick check online I was able to find an ASUS X75A-DS51 17.3-Inch Laptop ([www.amazon.com/gp/product/B00B7X6OYA/ref=as\\_li\\_ss\\_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00B7X6OYA&linkCode=as2&tag=comput0b9-20](http://www.amazon.com/gp/product/B00B7X6OYA/ref=as_li_ss_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00B7X6OYA&linkCode=as2&tag=comput0b9-20)) for \$615 which has a 17.3-inch screen and 8 GB RAM. I'm not saying you should buy this particular computer. You should read the reviews and check out other options. You will find less expensive laptop, but you are generally giving something else up (less memory, small hard drive, etc).

I wouldn't overlook local computer dealers. They often have sources for laptops which can make them very competitive. Plus, if you do have a problem (which can happen with any computer), you don't have to ship it back to the manufacturer.

Digital Dave

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Dear Digital Dave,

*A doctor's office referred me to their Web site to download a new patient form prior to visiting their office. I was able to view and print the form, but not to enter text into it online. It offered to let me add an electronic signature, but not text even though my cursor was blinking in the add text field on the form. Do I need additional software to enable adding text to this kind of document?*

Mike  
Cardiff, CA

Dear Mike,

It was most likely a PDF file that you accessed. Whether you can enter information into it online depends upon how it was originally put together by its creator. PDF files can be set up as forms, but they need to be made editable. If set up properly, you should be able to fill in the blanks with virtually any PDF Reader. Just in case the problem is with Adobe Reader, download the free Foxit Reader ([www.foxitsoftware.com/Secure\\_PDF\\_Reader/](http://www.foxitsoftware.com/Secure_PDF_Reader/)). (You may need to save the PDF file first, then open it with Foxit Reader.)

Many people designing forms use the built-in form tools in Adobe Acrobat, but never make it into an active form. In those cases, even though you feel you should be able to fill in the forms (the blinking cursor appears in the field), they are still read-only, not allowing any input. In those situations, you must print the form and fill it in by hand, which was probably the original intent at the doctor's office. It's still annoying since it seems like you should be able to add your answers first, then print it.

The add signature option is a separate issue from filling in the blanks. This is often done through a third-party to verify (sort of) authenticity. Commonly, people are still printing forms, signing them and either faxing them back or scanning and e-mailing them as an attachment.

Digital Dave

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*Dear Digital Dave,*

*We are Time Warner Cable customers and currently pay for a plan that gives us around 15 Mbps download speed using a wired connection from our D-Link DGL-4500 router. The specs and reviews of this router suggest we should be getting great Wi-Fi performance as well, yet the best results I can obtain are a measly 1.5 Mbps, even when positioned just a few feet from the router.*

*I would expect there to be some difference between wired and wireless download speeds, but is this the best we can expect? I've been researching this issue for weeks now and tried a multitude of suggestions on both the cable modem and the router (resetting/rebooting, FW upgrades, optimizing wireless settings, etc.), and frankly have run out of ideas. I'm hoping you might have some insight you could share.*

*Thank you,*

*Rob Davis  
San Diego, CA*

Dear Rob,

You're right! You should be getting great Wi-Fi speeds with that router. In fact, theoretically the Internet download speed of the Wi-Fi should be just as good as the wired connection since the limiting factor is the cable speed. There are other reasons that you may have slow speed, but I would first try swapping out the router—although, unless you got a lemon, I suspect the router is not the problem. (Maybe you can borrow a Wi-Fi router from your neighbor who has a bunch of them sitting in his garage just to annoy his wife.) Even an old 802.11g router should give an average throughput of 22 Mbps which is higher than your 15 Mbps Internet speed.

There are two sides to every Wi-Fi connection, the router and the connected device. Are all the other devices (tablets, streaming television, etc.) experiencing the same slow speeds? If you have only tested it on one computer, than it could be that the Wi-Fi card in that machine is faulty. The Wi-Fi card in any computer is separate from the wired network card. You could have a problem with Wi-Fi while getting great speeds from the wired connection. If you don't have multiple computers, have a friend bring a laptop over to run tests.

If you can't find bad hardware anywhere and you aren't overloading the Wi-Fi bandwidth with simultaneous use (video streaming, downloading files from the Internet, major backup over the Wi-Fi, VoIP phone calls, etc.), then there is a tendency to suspect throttling at the provider, but that would affect both the wired and wireless connections.

Digital Dave

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## Teaching in the Digital Age, Visor Display Eyewear for Athletes, and More!

“Mobile App Economies, Science Cafes, Virtual Private Networks and Supercomputers” by Marilyn K. Martin

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### Mobile App Economy in 2013: PC on a phone and Driving Start-ups

In January 2013, *VentureBeat* ran a story about how mobile apps exploded ([venturebeat.com/2013/01/18/the-mobile-app-economy-is-exploding-so-what-else-is-new/](http://venturebeat.com/2013/01/18/the-mobile-app-economy-is-exploding-so-what-else-is-new/)) in 2012, generating \$18 billion in revenue. Daily mobile app consumption in the US has reached 127 minutes per day, compared to 168 minutes for TV, and 70 minutes for Web browsing. The "revenue ramp" is steeper now for virtual products on mobile apps than for Web sites, mostly driven by micro-transactions from under 25 cents to 75 cents, mostly for games.

*The Miami Herald* ran a story in July 2013 on South Florida's new mobile app economy ([www.miamiherald.com/2013/07/07/3489645/the-app-economy.html#emlnl=Five\\_Minute\\_Herald](http://www.miamiherald.com/2013/07/07/3489645/the-app-economy.html#emlnl=Five_Minute_Herald)). Start-ups like LearnerNation ([learnernation.com/](http://learnernation.com/)) decided to make their Web site "browser friendly" by any smartphone, instead of apps exclusively for iPhone or Android. These start-ups are also achieving mobile connectivity through cloud computing, instead of device software. Mobile connectivity is becoming more important to established brand-name corporations too, using social media for exposure as well as transactional capabilities (paying by smartphone). While many talented and sought-after software designers and developers now prefer to work on their own, most have gravitated toward app development for mobile phones.

According to the DynmarkBlog in July 2013, the mobile app economy is projected to grow ([blog.dynmark.com/2013/07/16/mobile-app-economy-to-more-than-double-before-2017/](http://blog.dynmark.com/2013/07/16/mobile-app-economy-to-more-than-double-before-2017/)) from \$72 billion in 2013, to \$151 billion by 2017. The biggest contributor to this rise will be app-enabled commerce from mobile downloads, with word-of-mouth being the biggest reason people try new apps. While mobile apps are predicted to explode globally next year, some international companies, like Vserv.mobi ([www.vserv.mobi/](http://www.vserv.mobi/)) in India, are already sponsoring a Hackathon Marathon in late July 2013, to create innovative apps ([www.indiantelevision.com/release/y2k13/july/julyrel152.php](http://www.indiantelevision.com/release/y2k13/july/julyrel152.php)) for the global economy.

### New and Innovative Approaches to Teaching Science and Math

American students have never overwhelmed the hard science programs in colleges. But now there are new social programs designed to take the sciences out of their boxes and present them to the public in a more interesting fashion, as a sort of "continuing education" program. *Reuters*, in February 2013, reported on an interesting new way to learn science ([www.reuters.com/article/2013/02/01/us-usa-science-cafes-idUSBRE90T0WR20130201?feedType=RSS&feedName=scienceNews&utm\\_source=dlvr.it&utm\\_medium=twitter&dlvr.it=309301](http://www.reuters.com/article/2013/02/01/us-usa-science-cafes-idUSBRE90T0WR20130201?feedType=RSS&feedName=scienceNews&utm_source=dlvr.it&utm_medium=twitter&dlvr.it=309301)) in a relaxed public setting. Science Cafes are now popping up in nearly every state, where scientists can lecture on their specialty over dinner and drinks, and then open it up for discussion after a break. The idea started in England in 1998, and is now being loosely organized in the US by a Web site ([sciencecafe.org/content/](http://sciencecafe.org/content/)) created by PBS' NOVA science programs out of Boston's WGBH. Science Cafes are now being opened in bookstores, theaters and even high schools.



**“I wish they would find another way to teach physics to students!”**

In March 2013, the *Boston Globe* ran a story about a fascinating new project due to open in 2014 in Boston's Kendall Square, called The Lab Cambridge ([www.boston.com/business/technology/innoeco/2013/03/coming\\_soon\\_to\\_kendall\\_the\\_lab.html](http://www.boston.com/business/technology/innoeco/2013/03/coming_soon_to_kendall_the_lab.html)). The Lab will be a gallery and workspace to bring together artists, scientists, students and entrepreneurs, and will include an exhibition space, small auditorium, store and cafe. It's the brainchild of Harvard professor and entrepreneur, David Edwards, similar to Le Laboratoire in Paris ([lelaboratoire.org/en/](http://lelaboratoire.org/en/)) which Edwards opened in 2007. There, Edwards is inviting artists, performers and scientists to collaborate on exhibits. While students from all over the globe arrived to work on transforming ideas into prototype products. Edwards wants the same kind of "social force for innovation lab" in the new Boston project as well.

*The Seattle Times* announced in June 2013, that local educators and electronic-game developers have started work on a video game to keep teenage girls engaged ([seattletimes.com/html/localnews/2021302993\\_girlgamexml.html](http://seattletimes.com/html/localnews/2021302993_girlgamexml.html)) in math and science. A long-term project called G.A.M.E.S., or Girls Advancing in Math, Engineering and Science, started with a June 28th brain-storming session ([www.northeastern.edu/seattle/g-a-m-e-s-girls-advancing-in-math-engineering-and-science-2/](http://www.northeastern.edu/seattle/g-a-m-e-s-girls-advancing-in-math-engineering-and-science-2/)) at Seattle's Northeastern University. Research

has shown that girls often lose interest in math and science around fifth or sixth grade. The proposed video game will hopefully excite and encourage more girls to study math and science, and possibly even consider careers in those fields.

## High Tech Education and Teacher Help in the Digital Age

In Spring 2013, *Futuristic News* presented a video that shows teachers how to use a new smartphone app to grade tests ([futuristicnews.com/quick-key-great-innovation-for-teachers-use-your-smart-phone-to-grade-video/](http://futuristicnews.com/quick-key-great-innovation-for-teachers-use-your-smart-phone-to-grade-video/)). The app is called Quick Key ([quickkey.herokuapp.com/](http://quickkey.herokuapp.com/)), and eliminates hand-grading student tests, even in classrooms without computers. Designed by a teacher, Walter O. Duncan IV, Quick Key uses a smartphone scanner to instantly grade multiple-choice tests and aggregate the results.

In May 2013, Washington State governor Jay Inslee signed a bill ([blogs.seattletimes.com/microsoftpri0/2013/05/14/advanced-placement-computer-science-now-counts-toward-math-and-science-graduation-requirements/](http://blogs.seattletimes.com/microsoftpri0/2013/05/14/advanced-placement-computer-science-now-counts-toward-math-and-science-graduation-requirements/)) to let Advanced Placement Computer Science courses count toward the state's high school math and science graduation requirements. The step is applauded by local high tech industry leaders, since it will help attract more students to the high tech fields as their future workforce. The bill was formally signed at Rainier Beach high school, which already participates in a program where Microsoft employees volunteer to teach computer science.

*Gigaom* reported in July 2013 that English teachers actually offer more praise for texting ([gigaom.com/2013/07/15/omg-despite-creep-of-texting-lingo-teachers-say-tech-helps-students-writing/](http://gigaom.com/2013/07/15/omg-despite-creep-of-texting-lingo-teachers-say-tech-helps-students-writing/)) students than you would expect. Despite student papers turned in with texting lingo ("u" for "you" and "r" instead of "are"), teachers in a recent poll think digital technology is helping students be more creative and expressive. Students are writing more by being online, and are getting a wider set of opinions and commentary, which in turn encourages them to be more engaged in writing assignments. Although teachers added that digital tools can also encourage students to take shortcuts or write too fast and carelessly, and they don't fully understand issues like plagiarism, citation and fair use.

## Better Online Security against Third-Party Trackers

With the national scandal still simmering over how the government digitally snoops on millions of law-abiding US citizens, there are still ways to better protect yourself from online tracking by aggressive advertisers and other private marketers. In February 2013, the *Mercury News* (through *Silicon Valley*) ran a Larry Magid column about using stronger passwords ([www.siliconvalley.com/larry-magid/ci\\_22542708/magid-what-you-can-do-protect-your-online](http://www.siliconvalley.com/larry-magid/ci_22542708/magid-what-you-can-do-protect-your-online)) and different passwords for each online account. There are "password safes" available now, like RoboForm ([www.roboform.com/](http://www.roboform.com/)) or Lastpass ([lastpass.com/](http://lastpass.com/)) that will remember

and enter passwords for you. They can even generate hard-to-crack passwords, using numbers and symbols. He also suggests periodically reviewing your Facebook privacy settings, and check your browser's opt-out features if ads for once-researched items continue to follow you.

In March 2013, *Business Insider* (through Yahoo! Finance) recommended that the best way to stay safe and anonymous ([finance.yahoo.com/news/stay-safe-anonymous-internet-using-161200185.html](http://finance.yahoo.com/news/stay-safe-anonymous-internet-using-161200185.html)) on the Internet is to use a VPN, or virtual private network. It is an option frequently used by big companies to keep their internal communications private, and lets employees securely connect to their network when away from the job. You log-in to the network via a VPN client, which routes all Internet activity and communication through a "middleman" computer, concealing your IP address and physical location.

This technology is available to individuals by installing a VPN server, like Open VPN ([openvpn.net/](http://openvpn.net/)) on a computer you want to route your Internet traffic through. A simpler option is to use a service like AnchorFree ([www.anchorfree.com/](http://www.anchorfree.com/)), which is free if you choose the ad-supported route, or \$30 a year to go ad-free. AnchorFree will handle and anonymize your Internet traffic, and even check it for malware.

BGR ran an article in April 2013 that a former Google engineer, Brian Kennish, began building Disconnect ([www.disconnect.me/](http://www.disconnect.me/)) several years ago, to block third-party trackers ([bgr.com/2013/04/17/disconnect-filter-online-tracking-442961/](http://bgr.com/2013/04/17/disconnect-filter-online-tracking-442961/)) from following users as they browse the Web. The service installs a plug-in for either Chrome or Firefox, and blocks up to 2,000 different online trackers.

## New Employment Tech: Balancing Life and Work through the Internet

*BusinessNewsDaily* (through Yahoo! News) reported in June 2013 that a recent survey shows that employees aren't only working more from home, via computer, they are also "homing from work ([news.yahoo.com/homing-trend-becomes-norm-105059202.html](http://news.yahoo.com/homing-trend-becomes-norm-105059202.html))." An astonishing 93% of workers take care of personal and family needs while on the job (a 31% increase from 2011), as they try to improve their work-life balance. Over two-thirds (70%) use their work computer for personal online activities, from banking to scheduling vacations and researching recipes.

Nearly half of those surveyed actually left their office during the day to run personal errands, from shopping and banking to getting a manicure or dropping off dry cleaning. This ability to take care of more personal business during the workday may also account for the 30% jump in employees putting in more than nine hours a day on the job.

An article in the *Denver Post* in April 2013 reported that some Colorado companies go beyond lip-service to help their employees find the right work-life balance ([www.denverpost.com/topworkplaces/ci\\_22970646/how-colorado-companies-help-their-employees-achieve-work?source=pkg](http://www.denverpost.com/topworkplaces/ci_22970646/how-colorado-companies-help-their-employees-achieve-work?source=pkg)). Some companies promote a 9/80 work schedule that lets employees work eight nine-hour days and one eight-hour day, for a day off every other Friday. Still other Colorado companies consider "Balance Our Lives" as a core value, and employees who have completed seven years of employment can get a six-week paid sabbatical to pursue personal passions. One fitness-tracking company, TrainingPeaks ([home.trainingpeaks.com/company.aspx](http://home.trainingpeaks.com/company.aspx)), considers working-out as part of their daily routine, and offers on-site showers, an organic fruit stocked kitchen, and a \$1,200 year fitness-activity reimbursement.

## More Work Place Tech: Helping the Disabled Land Jobs, and Phased Retirement

The Associated Press (through *Silicon Valley*) in June 2013 reported that high-tech innovations are getting more disabled people into the workforce ([www.siliconvalley.com/latest-headlines/ci\\_23522564/high-tech-gains-get-disabled-people-into-workforce](http://www.siliconvalley.com/latest-headlines/ci_23522564/high-tech-gains-get-disabled-people-into-workforce)). A deaf high school football coach, Kevin Bella in Fremont, California, sits before a TV screen to lecture his players, using sign-language that is interpreted into voice for his players to listen to on their phones. Apps like GoTalk NOW ([www.attainmentcompany.com/gotalk-now-free](http://www.attainmentcompany.com/gotalk-now-free)) and TapSpeak Sequence ([tapspeak.com/drupal/](http://tapspeak.com/drupal/)) combine text, pictures and symbols with audio programs to give voice to thoughts and ideas.

The blind can take notes with voice-recognition programs, and listen to e-mails or Web sites "read" to them by screen readers. More baby boomers are working into their senior years now using assistive devices for better sight and hearing. And even Google Glass ([www.google.com/glass/start/what-it-does/](http://www.google.com/glass/start/what-it-does/)), which has a built-in camera and voice-command capability, may help disabled wearers read what people are saying in real time, or even control their wheelchairs by voice or gaze.

The Associated Press (through the *Denver Post*) ran a story in June 2013 how some companies are now offering phased retirement ([www.denverpost.com/business/ci\\_23515654/phased-retirement-offers-softer-landing-older-workers](http://www.denverpost.com/business/ci_23515654/phased-retirement-offers-softer-landing-older-workers)). Some US companies allow older workers to scale back their hours as they prepare to retire, and move into part-time positions once their pending retirement is announced. "Retiring" participants have to continue working at least 20 hours a week to maintain their health benefits, but can cash in their profit-sharing and 401k once they've officially retired—even if they choose to continue working in a part-time job. Everyone considers it a win-win situation, where retirees can maximize their retirement savings, and the companies can

still benefit from highly experienced employees, who have many times built close ties with clients.

## The Latest on Supercomputers

In June 2013, *USA Today* ran an article about how Purdue University ([www.purdue.edu](http://www.purdue.edu)) has the fastest university-owned supercomputer ([www.usatoday.com/story/tech/2013/06/18/purdue-fastest-computer/2434789](http://www.usatoday.com/story/tech/2013/06/18/purdue-fastest-computer/2434789)). Their latest supercomputer, Conte, received its Number One University ranking in June 2013 from Top 500 ([www.top500.org](http://www.top500.org))'s list of international computers. (On August 1, 2013, Top 500 also announced that Australia's brand new 1.2 petaflop supercomputer, Rijin, is now the fastest in that country.)

CNET announced in August 2013 that Japan's Fujitsu supercomputer just simulated one second of human brain activity ([news.cnet.com/8301-17938\\_105-57597049-1/fujitsu-supercomputer-simulates-1-second-of-brain-activity/](http://news.cnet.com/8301-17938_105-57597049-1/fujitsu-supercomputer-simulates-1-second-of-brain-activity/)). It took the supercomputer 40 minutes to complete the simulation, involving 1.73 billion virtual nerve cells connected by 10.4 trillion synapses, to produce the one second of "neuronal network activity" in real time.

## Google Glass: Ultimate Wearable Computer? Or Privacy Violator?

Google's eyeglass-computer, Glass ([www.google.com/glass/start/what-it-does](http://www.google.com/glass/start/what-it-does)), is still in trials, but the buzz—and concerns—are already making waves. In June 2013, *Forbes* ran a story that Google Glass can't be compared ([www.forbes.com/sites/haydnshaughnessy/2013/06/25/why-google-glass-will-not-be-another-iphone/?partner=yahootix](http://www.forbes.com/sites/haydnshaughnessy/2013/06/25/why-google-glass-will-not-be-another-iphone/?partner=yahootix)) to the meteoric rise of the iPhone. There are already claims that 12% of the adult American population would buy Glass if it was available right now. But Google Glass is not really a smartphone-upgrade, and is probably only going to revolutionize augmented-reality. There is also no mass market (yet) for wearable computing, and Glass can't be compared to the rise of smartphones, that "were an overdue substitute for existing mobile phones."

The *CS Monitor*, in May 2013, reported on Glass' potential to take us into new and unimaginable territory of privacy and policy violations ([www.csmonitor.com/Innovation/Latest-News-Wires/2013/0518/Google-Glass-worries-lawmakers-casino-operators?nav=93-csm\\_category-storyList](http://www.csmonitor.com/Innovation/Latest-News-Wires/2013/0518/Google-Glass-worries-lawmakers-casino-operators?nav=93-csm_category-storyList)), which has everyone from lawmakers to casino operators worried. Even though Glass has a tiny blinking light when it is video recording, it would be hard to see in a play or movie theater. And although test-wearers are now conscientious about taking it off in "inappropriate situations"—from gym lockers to secret work meetings—later users may not. Google's Executive Chairman, Eric Schmidt, dismisses the criticism as coming from people who are afraid of change, and that new rules/policies of social etiquette (where Glass will and will not be appropriate to wear) will be worked out over time.

Some of those policies are already in the works. Caesar's Entertainment, in Las Vegas, has already reversed itself and announced that Glass is not permitted to be worn ([www.vegaschatter.com/story/2013/5/9/12825/40084/vegas-travel/The+Changing+Story+of+Google+Glass+And+Vegas](http://www.vegaschatter.com/story/2013/5/9/12825/40084/vegas-travel/The+Changing+Story+of+Google+Glass+And+Vegas)) while gambling or in its showrooms. Seattle's Five Point Cafe ([the5pointcafe.com](http://the5pointcafe.com)) has become the first restaurant to ban Glass, out of respect for customers' privacy. And California's Highway Patrol reports that while there is no law against driving while wearing Google Glass, the driver can be cited if the device results in a dangerous level of distraction. Members of Congress have also written to Google, asking how Glass handles privacy issues, and whether it is capable of facial recognition. Others want to know if Glass' data-stream would be routed to be collected somewhere.

## Other Innovative Visor Display Eyewear for Athletes

The *CS Monitor*, in January 2013, ran a story about a new smart ski goggle ([www.csmonitor.com/Innovation/Tech/2013/0127/App-driven-life-Smart-ski-goggle-visor-is-like-a-dashboard?nav=93-csm\\_category-storyList](http://www.csmonitor.com/Innovation/Tech/2013/0127/App-driven-life-Smart-ski-goggle-visor-is-like-a-dashboard?nav=93-csm_category-storyList)). Oakley's Airwave ski goggles ([www.oakley.com/airwave](http://www.oakley.com/airwave)) has a small, corner screen display on the visor, which shows a skier's speed, altitude and "air time" after that last jump. If a user carries an iPhone or Android in their pocket, a free app allows the goggles to also display incoming text messages, or caller ID. It can even provide a "buddy tracker," to locate friends on the slopes that also have a pair of Airwave goggles, or have downloaded the Airwave phone app. The Airwave smart-goggles run about \$600.

In June 2013, *Wired* reported on Recon's Jet HUD Action Sunglasses ([reconjetglasses.com](http://reconjetglasses.com)), which are also geared toward sports' participation ([www.wired.com/gadgetlab/2013/06/recon-jet-pilot/](http://www.wired.com/gadgetlab/2013/06/recon-jet-pilot/)), especially cyclists and triathletes. The Action Glasses have a visor display of both data-tracking and health monitors. The Jet Pilot edition will work with both iOS and Android, and can sync with smartphones via Bluetooth, supports ANT+, and can display caller-ID and text messages from a smartphone. Recon is taking preorders now, with the final price between \$300-\$600 for their Action Sunglasses.

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Marilyn is a freelance writer and humorist, with a special interest (besides computers and technology) in Science Fiction. Besides short stories published in various magazines, she also has some new e-books available on Amazon Kindle: *Hunting Monster Aliens* ([www.amazon.com/s/?\\_encoding=UTF8&camp=1789&creative=390957&field-keywords=Hunting%20Monster%20Aliens%20martin&linkCode=ur2&rh=n%3A133140011%2Ck%3AHunting%20Monster%20Aliens%20martin&tag=comput0b9-20&url=search-alias](http://www.amazon.com/s/?_encoding=UTF8&camp=1789&creative=390957&field-keywords=Hunting%20Monster%20Aliens%20martin&linkCode=ur2&rh=n%3A133140011%2Ck%3AHunting%20Monster%20Aliens%20martin&tag=comput0b9-20&url=search-alias))

%3Ddigital-text) is an on-going series of novellas, about a wise-cracking team of ghost investigators who occasionally turn into alien-monster hunters. ***Culture Crash! A California Yankee Transplanted to Texas*** ([www.amazon.com/gp/product/B00CKXF8GQ/ref=as\\_li\\_ss\\_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00CKXF8GQ&linkCode=as2&tag=comput0b9-20](http://www.amazon.com/gp/product/B00CKXF8GQ/ref=as_li_ss_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00CKXF8GQ&linkCode=as2&tag=comput0b9-20)) is a collection of humor essays chronicling her adventures in her new home-state.

ComputerEdge E-Books has converted many of Marilyn's computer humor columns into four e-books.

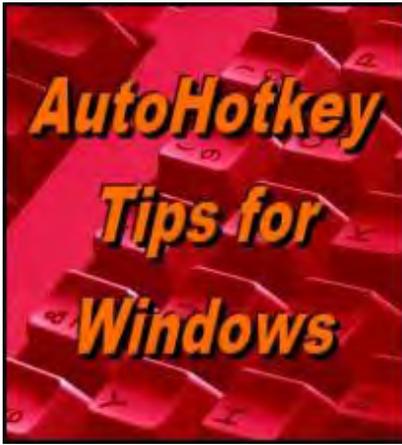
Now available in a four-book Kindle bundle from Amazon.com ***The Best Computer and Internet Humor, Anecdotes, and Jokes Found on the Web*** ([www.amazon.com/gp/product/B00ACVX2PC/ref=as\\_li\\_ss\\_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00ACVX2PC&linkCode=as2&tag=comput0b9-20](http://www.amazon.com/gp/product/B00ACVX2PC/ref=as_li_ss_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00ACVX2PC&linkCode=as2&tag=comput0b9-20)).

Marilyn's collection of the funniest stories about our computing machines and how we use them at home, the office, and in cyber space. Save 25% off the individual book price!

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**Yet, One More  
Reason to Use  
AutoHotkey  
Free Software!**

## [Address Book App Calculates Age and Other Enhancements](#)

“Built on AutoHotkey ListView, the Address Book App Gets Improvement and an Age Calculating Feature.” by Jack Dunning

The Address Book app is changed for better editing, backup, and protection against accidental deletions. Some of these tricks apply to any AutoHotkey app. Plus, age calculation is added as a new feature.

*Last week, I started working on this barebones Address Book AutoHotkey app ([webserver.computoredge.com/online.mvc?issue=3132&article=ahk](http://webserver.computoredge.com/online.mvc?issue=3132&article=ahk)). It is just one of the starter scripts I'm developing for educational purposes. In my columns, rather than regurgitate the excellent documentation found at the AutoHotkey Web site ([l.autohotkey.net/docs/](http://l.autohotkey.net/docs/)), I concentrate on building simple apps which demonstrate how AutoHotkey actually works, then explain how the commands are used in those apps. These scripts are by no means perfect, but they are functional—each demonstrating specific commands and features. As I write these scripts, I learn more for passing along to others. Since I focus on real applications, there are many aspects of each AutoHotkey command which I do not discuss. I encourage everyone to follow the command links in each column and explore the options on their own. That alone will spark many more ideas for apps.*

*If you're not familiar with AutoHotkey, then my current columns may seem befuddling, but remember I've been learning to write AutoHotkey scripts for over a year. They are built on the baby steps which appear in both the earlier columns and the e-books ([www.computoredge.com/AutoHotkey/AutoHotkey\\_Books\\_for\\_Beginners\\_and\\_Novices.html](http://www.computoredge.com/AutoHotkey/AutoHotkey_Books_for_Beginners_and_Novices.html)). (I started with simple one-liners which I could immediately add to my Windows bag of tricks). If you like logic brainteasers and crossword puzzles, then you will find making your Windows computer easier to use an entertaining proposition. Since that first article, I've chronicled my journey learning AutoHotkey in ComputerEdge and passed along many tips, tricks, and mistakes in my columns, eventually including them in my e-books. I also have an extensive list of demonstration scripts available for free download at the ComputerEdge AutoHotkey Dropbox site ([www.dropbox.com/sh/4qu48lyqtiixdg7t/QdMY1dNuy7](http://www.dropbox.com/sh/4qu48lyqtiixdg7t/QdMY1dNuy7)). (You can download a brief explanation of each of the posted scripts (AutoHotkey Script Index) with links to the original articles or columns from the same site in EPUB (iPad, NOOK, etc.) and MOBI (Amazon Kindle) e-book formats, as a PDF, or a text file.)*

*As I explore the power of the AutoHotkey ListView Graphic User Interface (GUI), which is similar in operation and function to the Windows Explorer file list window, I keep getting more ideas for possible applications. Below is a discussion of a barebones address book for my favorite people which works with multiple programs. It's currently capable of adding formatted addresses to documents, sending e-mails to people in the book, and calculating their ages. I also have a concept for a barebones calorie counter (which I plan to start on next week) and an AutoHotkey app control panel for which the ListView AutoHotkey control is ideally suited. There is plenty more to learn in the next few weeks.*

*As I mentioned, unless readers have been following along from the beginning or they are already familiar with writing scripts of any type, I don't expect that everyone will understand what I address here. However, if you are motivated to get the most out of your Windows computer, ComputerEdge has some beginner's AutoHotkey Web pages ([www.computoredge.com/AutoHotkey/Introduction\\_AutoHotkey\\_Review\\_and\\_Guide\\_for\\_Beginners.html](http://www.computoredge.com/AutoHotkey/Introduction_AutoHotkey_Review_and_Guide_for_Beginners.html)) and I've written a couple of newbie AutoHotkey e-books ([www.computoredge.com/AutoHotkey/AutoHotkey\\_Books\\_for\\_Beginners\\_and\\_Novices.html](http://www.computoredge.com/AutoHotkey/AutoHotkey_Books_for_Beginners_and_Novices.html)) which start with simple, but immediately useful, AutoHotkey techniques building up your own knowledge base bit by bit.*

\* \* \*

Last week, the ListView ([l.autohotkey.net/docs/commands/ListView.htm](http://l.autohotkey.net/docs/commands/ListView.htm)) Graphic User Interface (GUI) was used to set up a basic table of addresses ([webserver.computoredge.com/online.mvc?issue=3132&article=ahk](http://webserver.computoredge.com/online.mvc?issue=3132&article=ahk)). Features for adding formatted addresses to documents and sending e-mail, were added via a right-click menu. The data for the *AddressBook.ahk* script

is saved in the file *AddressBook.txt*. One of the weakest points of last week's script is adding and updating data with only one text field—separating each column with commas. This week the *ListView* columns are broken up into separate GUI editing controls making data input much easier and more reliable (see Figure 1).

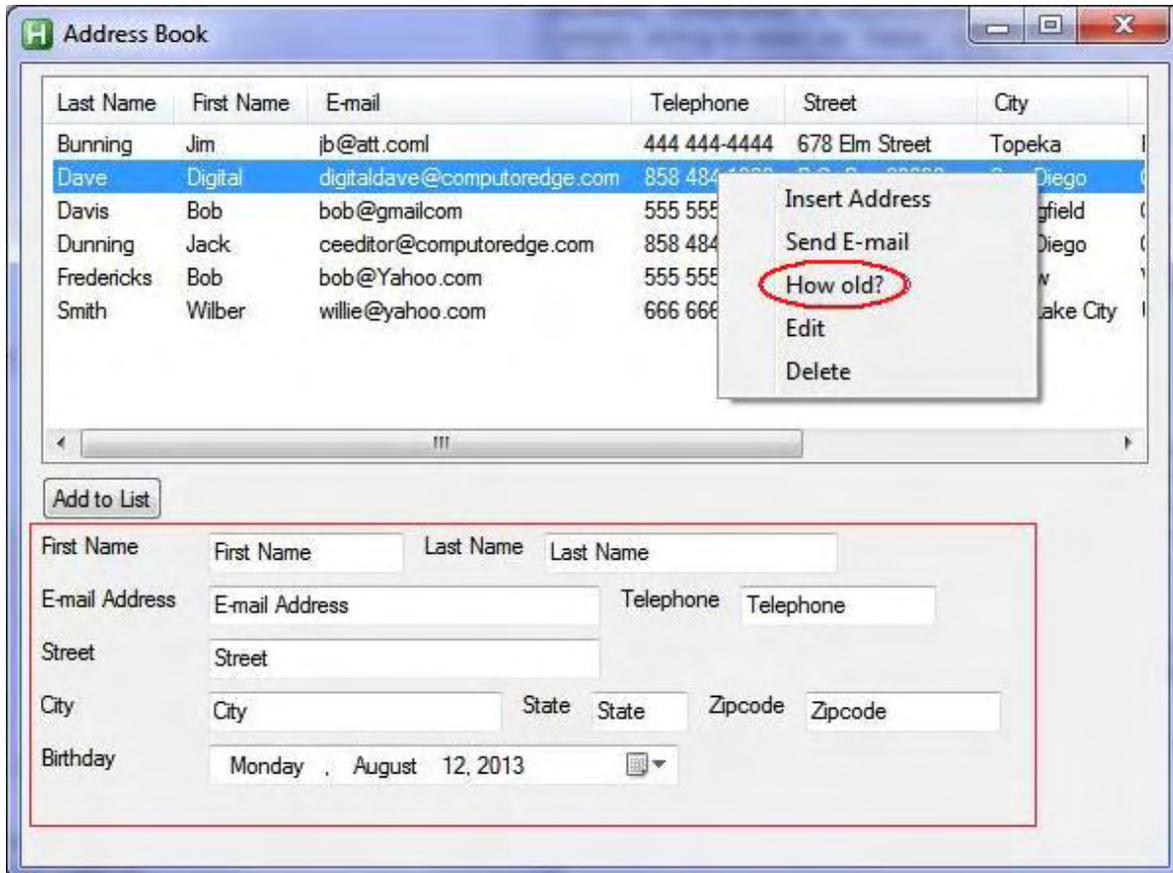


Figure 1. The field for input and update of address information is broken up into multiple GUI controls for easier editing (inside the red box). Plus, a new feature for calculating age (How old?) is added.

In addition, there are a number of other techniques implemented in this new Address Book app, some of which may apply to any of your AutoHotkey scripts.

*AutoHotkey ListView Tip: When the ListView is sorted by the first column (default), pressing the first letter of a data item on the keyboard will jump to and select the first item starting with that letter; press again to move to the second; and so on...*

### Adding GUI Controls for Data Input and Editing

To break apart the original single editing field found last week and add individual controls for editing and updating each column, it's necessary to add two lines of code for each column:

```
Gui, Add, Button, section gAddItem, Add to List
Gui, Add, Text, w75 xm section , First Name
Gui, Add, Edit, w100 ys vAddr2, First Name
Gui, Add, Text, ys, Last Name
Gui, Add, Edit, w150 ys vAddr1, Last Name
Gui, Add, Text, w75 xm section, E-mail Address
Gui, Add, Edit, w200 ys vAddr3, E-mail Address
Gui, Add, Text, ys, Telephone
Gui, Add, Edit, w100 ys vAddr4, Telephone
Gui, Add, Text, w75 xm section, Street
Gui, Add, Edit, w200 ys vAddr5, Street
Gui, Add, Text, w75 xm section, City
Gui, Add, Edit, w150 ys vAddr6, City
Gui, Add, Text, ys, State
```

```
Gui, Add, Edit, w50 ys vAddr7, State
Gui, Add, Text, ys, Zipcode
Gui, Add, Edit, w100 ys vAddr8, Zipcode
Gui, Add, Text, w75 xm section, Birthday
Gui, Add, DateTime, ys vAddr9, LongDate
```

The first is the Gui, Add, Text ([I.autohotkey.net/docs/commands/GuiControls.htm#Text](http://I.autohotkey.net/docs/commands/GuiControls.htm#Text)) line which labels the input field. The second is the Gui, Add, Edit ([I.autohotkey.net/docs/commands/GuiControls.htm#Edit](http://I.autohotkey.net/docs/commands/GuiControls.htm#Edit)) line which puts in the editing field itself. Notice that the field variables (*vAddr1, vAddr2, vAddr3,...*) are numbered consecutively to match the columns and data variables parsed from the data file. This makes it much easier to use a *Loop* to move data and match fields to columns.

It is easy for the formatting of controls in Gui windows to become confusing—even when we think we know what we're doing. It's times like these that it can be worthwhile to review how the control formatting works (found in this AutoHotkey column ([webserver.computeredge.com/online.mvc?issue=3113&article=ahk](http://webserver.computeredge.com/online.mvc?issue=3113&article=ahk)) and the second e-book, *Digging Deeper*.) The following chart (Figure 2) helps me to remember the differences between the various format options (*xs, xm, ys, ym, section, ...*). For even more accurate formatting the x,y coordinates can be used.

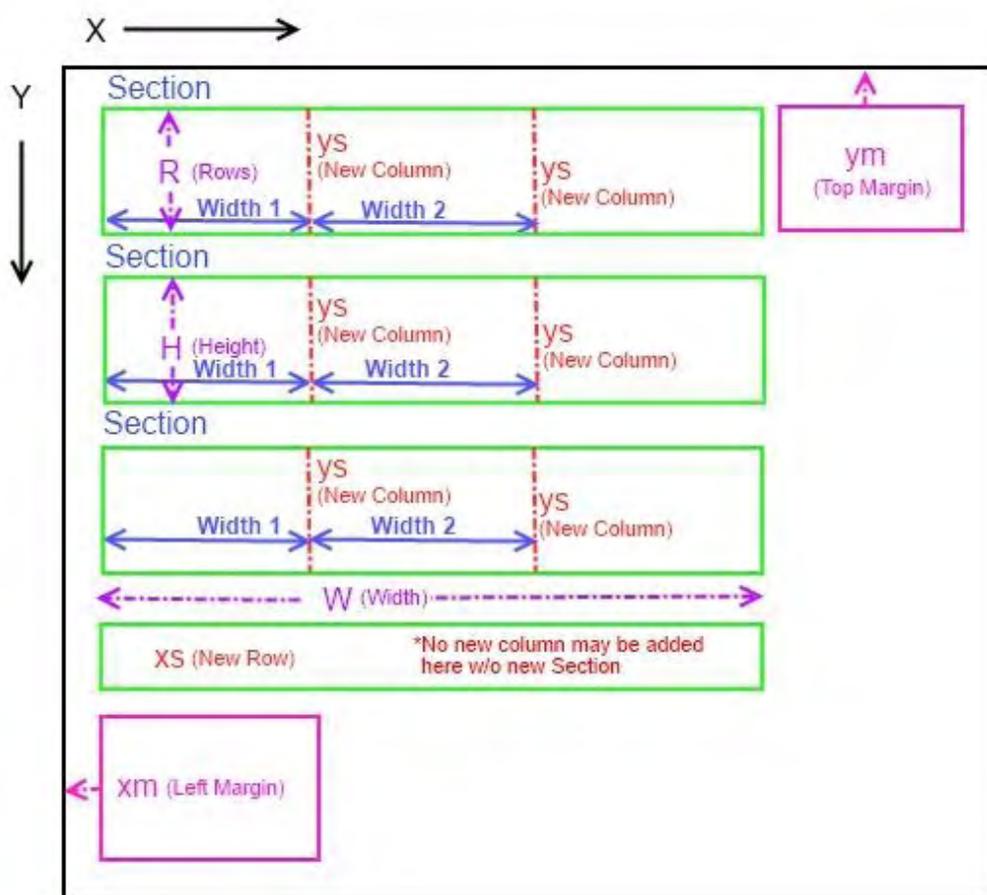


Figure 2. This chart is an aid for remembering the effects of various formatting options.

Last week, all of the field locations were pegged to the resizing of the window (using the *GuiSize* subroutine triggered by dragging corners or edges with the mouse). The movement of these new fields with resizing has been removed due to problems with image residue (parts of images from previous locations). I'm not sure what the problem was, but I resolved to only adjust the width of the *ListView* with the GUI window resizing. (If I later find a resolution, I'll pass it on.):

```
GuiSize: ; Widen or narrow the ListView in response to the user's resizing of the window.
if A_EventInfo = 1 ; The window has been minimized. No action needed.
return
; Otherwise, the window has been resized or maximized. Resize the ListView to match.
```

```
GuiControl, Move, MyListView, % "W" . (A_GuiWidth - 20)
```

Note that the last GUI control added is *DateTime* ([I.autohotkey.net/docs/commands/GuiControls.htm#DateTime](http://I.autohotkey.net/docs/commands/GuiControls.htm#DateTime)). Since this coincides with the Birthday column, using the *DateTime* control will make the adding and editing easier. Since the *DateTime* control saves data in the timestamp format (YYYYMMDDHHMMSS), we need some special handling for the *ListView* columns.

### Adding a Hidden Column to ListView

The problem with the timestamp format is that it's not user-friendly for reading. While it can be visually parsed to its components (20130814123456 => year 2012, month 08, day 14, hour 12, minutes 34, seconds 56), it's much easier to read a text formatted date (Wednesday, August 14, 2013). However, if the formatted date is placed in the column, then the usual date conversion hassle comes up when saving the date to file. The best option is to add another column for displaying the formatted date, then hide the timestamp column:

```
Gui, Add, ListView, sort -ReadOnly r10 w800 vMyListView gMyListview, Last Name
    | First Name | E-mail | Telephone | Street | City | State | Zip | | Birthday
```

Note the blank space between *Zip* and *Birthday*#Zip | | Birthday# This is a trick so that we can store the birthday in timestamp format (YYYYMMDDHHMMSS) in the hidden column while displaying a traditional date form in the last column (*Column 10*)—as shown later in this column.

### Editing and Saving Data

The data no longer needs commas between the items since each item has an editing field of its own. However, a delimiting character will be needed for updating and adding the data to *ListView*. Since the vertical line character (|) is rarely ever used in text and does not need the escape character (^) before it, it substitutes for the comma formerly used. Now commas, quote marks (both single and double), semicolons, and other special characters can be used and displayed (and saved) without a problem in the editing fields, *ListView* columns and (saved) in the data file.

One of the effects of this change is seen in the *GuiContextMenu* (right-click menu subroutine which automatically combines the various columns):

```
LV_GetText(ColText, A_EventInfo, 1)
EditText := ColText
Loop 9
{
    LV_GetText(ColText, A_EventInfo, A_Index+1)
    EditText := EditText . "|" . ColText
}
```

The delimiting character (|) is placed between the data for each column. Note that the loop only increments 9 times even though there are now 10 columns. The last column (the formatted date) is for display purposes only and not saved or edited.

The editing label (subroutine) also reflects replacing last week's use of the comma with the vertical line character:

```
EditItem:
    SelectedRow := LV_GetNext()
    StringSplit, RowData, EditText, |
    Loop, 9
    {
        GuiControl, ,Addr%A_Index%, % Rowdata%A_Index%
    }
    GuiControl, ,Button1, Update
Return
```

The *EditItem* label parses the data collected from the columns for the selected row with the SplitString command ([I.autohotkey.net/docs/commands/StringSplit.htm](http://I.autohotkey.net/docs/commands/StringSplit.htm)) making it available adding to the GUI editing fields. Each value from the *ListView* columns (*RowData1*, *RowData2*, *RowData3*, ...) matches up with the edit field variables (*Addr1*, *Addr2*, *Addr3*, ...). This makes it easy to use the *GuiControl* command ([I.autohotkey.net/docs/commands/GuiControl.htm](http://I.autohotkey.net/docs/commands/GuiControl.htm)) inside a Loop (*I*.

[autohotkey.net/docs/commands/Loop.htm](http://autohotkey.net/docs/commands/Loop.htm)) to update the values in all of the editing fields.

After the data is edited and the *Update* (or *Add to list* for new addresses) button is clicked the data is updated in *ListView* (or added):

```

AddItem:                                ; Add new or update ListView row
    Gui, Submit, NoHide
    FormatTime, addr10, %Addr9%, dddd MMMM d, yyyy
If SelectedRow = 0
    {
        LV_Add(" ", Trim(Addr1),Trim(Addr2),Trim(Addr3),Trim(Addr4)
            ,Trim(Addr5),Trim(Addr6),Trim(Addr7),Trim(Addr8), Trim(Addr9), Addr10)
    }
else
    {
        LV_Modify(SelectedRow," ", Addr1,Addr2,Addr3,Addr4
            ,Addr5,Addr6,Addr7,Addr8,Addr9,Addr10)
        LV_ModifyCol(1,"Sort")
        SelectedRow := 0
        GuiControl, ,Button1, Add to list
    }
SizeCols()
UpdateFile()
Return

```

Since the data is already in discrete fields, it is no longer necessary to use *SplitString* to parse a single line of data.

Note that *Column 10* is formatted with the *FormatTime* command ([I.autohotkey.net/docs/commands/FormatTime.htm](http://autohotkey.net/docs/commands/FormatTime.htm)) using the value of *Addr9* prior to the row update or addition. This gives us the Birthday display value in a more traditional form.

The data save function, *UpdateFile()*, is unchanged from last week since the data is taken from the original nine columns in the same format. *Column 10* does not need to be saved since it is display-only information.

## Displaying Birthdays

The new column (*Column 10*) for displaying the birthday in a user readable format is for read-only purposes since it holds no saved data. The birthday data is actually located in *Column 9* in timestamp format.

The display of Column 10 () is set up when loading during the auto-execute portion of the script with:

```

If RowData9 =
    RowData10 := ""
Else
    FormatTime, RowData10, %RowData9%, dddd MMMM d, yyyy

```

The first part of this conditional uses *Column 9* data (which is not displayed since it is raw data) to check for a valid data. If *RowData9* is blank, then *RowData10* is set to blank. Otherwise the *FormatTime* command ([I.autohotkey.net/docs/commands/FormatTime.htm](http://autohotkey.net/docs/commands/FormatTime.htm)) is used to set *Column 10* (*RowData10*) to a user-friendly date format. A trick is used to hide *Column 9* while *Column 10* displays the data in a readable form.

To hide *Column 9*, the *LV\_ModifyCol()* function ([I.autohotkey.net/docs/commands/ListView.htm#bifCol](http://autohotkey.net/docs/commands/ListView.htm#bifCol)) is used. Since the *SizeCol()* function, which displays all column data and headers in full view, is already available from last week, new lines of code are added to it hiding *Column 9*, resizing *Column 10*, then making *Column 10* unsortable to prevent unusable sorts:

```

SizeCols()
{
    Loop, 8
    {
        LV_ModifyCol(A_Index,"AutoHdr")
    }
}

```

```

LV_ModifyCol(9, 0) ;Hide Column 9
LV_ModifyCol(10, "AutoHdr" ) ;Resize Column 10
LV_ModifyCol(10, "NoSort" ) ;Do not sort Column 10
}
    
```

Column 9 is hidden and Column 10 displays birthdays in a traditional format (see Figure 3).

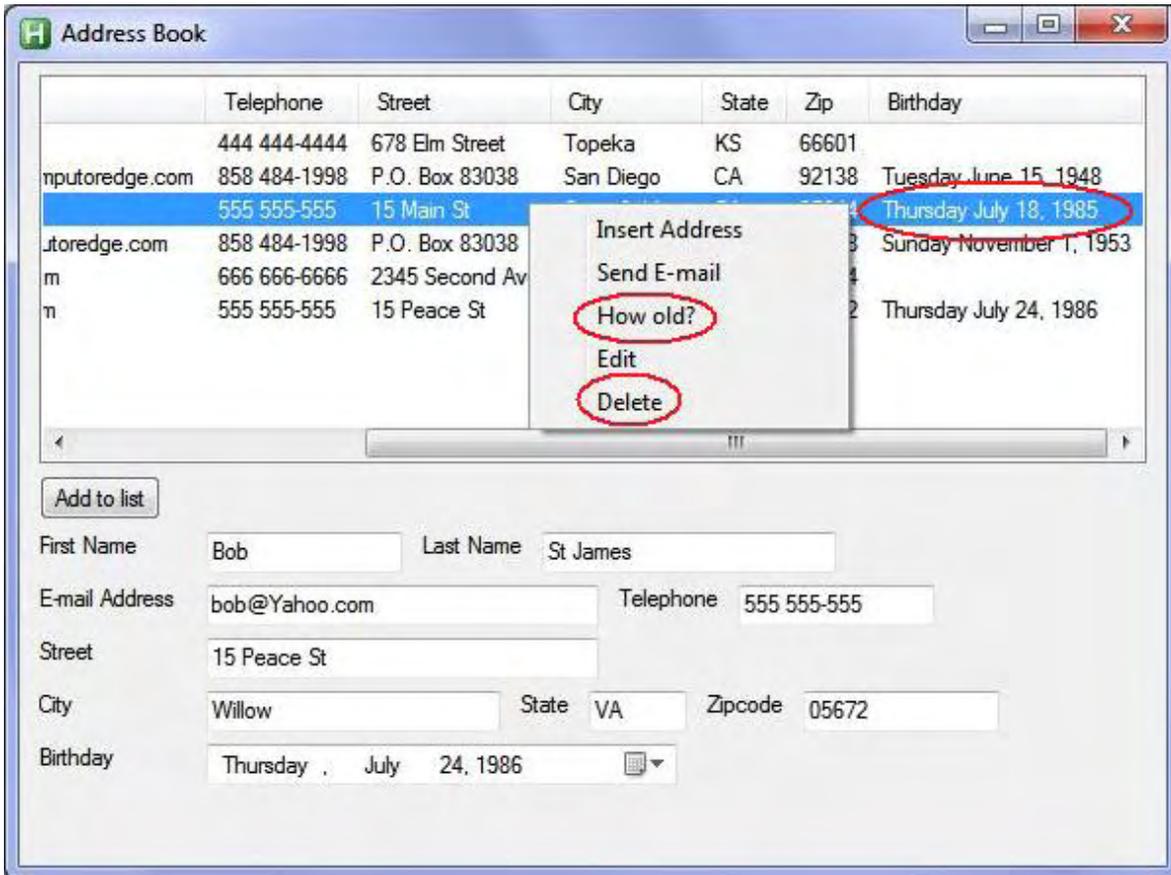


Figure 3. The original timestamp birthday column is hidden while a display column with a formatted date is displayed. The right-click option "How old?" is added to calculate ages. Deleting rows was too easy.

The *Birthday* column header has been deactivated for sorting (*LV\_ModifyCol(10, "NoSort")*), but it would be useful if the list sorts on the hidden *Column 9* which holds the birthday in the timestamp format. Next, when the *Column 10* header is clicked, *Column 9* (the birthday timestamp data) will be used to sort the list.

### Sorting on a Hidden Column

Even though *Column 10* no longer sorts when clicking on the column header, it would be useful to sort on the hidden *Column 9*. This is done by adding code to the *MyListView* label which fires whenever the *ListView* box is clicked with the left-mouse button.

```

MyListView:
  If A_GuiEvent = e
    LV_ModifyCol(1, "Sort")
  If A_GuiEvent = ColClick
    {
      If A_EventInfo = 10
        LV_ModifyCol(9, "SortDesc")
    }
  UpdateFile()
Return
    
```

In this case the built-in AutoHotkey variable *A\_GuiEvent* ([i.autohotkey.net/docs/commands/ListView.htm#notify](http://i.autohotkey.net/docs/commands/ListView.htm#notify)) (G-Label Notifications) is used to detect when a column header is clicked inside the *ListView* box (*A\_GuiEvent = ColClick*). The built-

in variable *A\_EventInfo* contains the column number (*A\_EventInfo* = 10). The *LV\_ModifyCol()* function is used to sort (descending) on *Column 9* even though the *Column 10* header has been clicked (*LV\_ModifyCol(9,"SortDesc")*).

### Calculating Age

To add an age calculation feature requires two steps. First the option is added to the right-click Menu (*l.autohotkey.net/docs/commands/Menu.htm*):

```
Menu, MyContextMenu, Add, How old?, Age
```

Next the *Age* label is added to carry out the task:

```
Age:                                ;Calculates age
    StringSplit, RowData, EditText , |
    HowOld(RowData9,A_Now)
    MsgBox, %RowData2% %RowData1% Born: %RowData10%\n%Years% Years %Months
% Months %Days% Days
Return
```

Similar to the other right-click menu options, the *Age* label uses the same *EditText* line of data generated by *GuiContextMenu* (right-click). In this case, the *HowOld(FromDay,ToDay)* function developed for the GrandKids app is included for calculating the age. It uses the timestamp from *Column 9* and today's date (*A\_Now*) also in timestamp format. This function can be found in the complete code listing at the end of this column. A message box displays the results as shown in Figure 4.

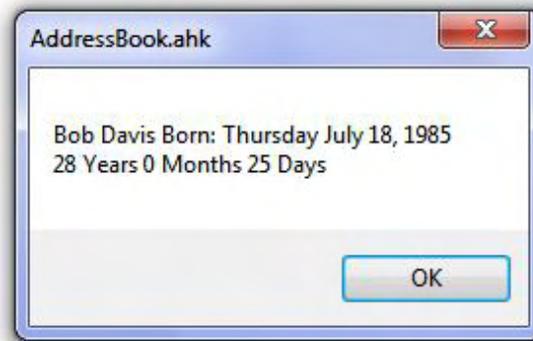


Figure 4. The age, calculated with the *HowOld()* function, of the person listed in the select row is displayed.

### Accidentally Deleting Items

Another concern that cropped up was that it was far too easy to delete rows in the Address Book. An accidental selection of *Delete* from the right-click menu would immediately remove the item. I fixed this with a trap that pops up a message box (*MsgBox (l.autohotkey.net/docs/commands/MsgBox.htm)*):

```
DeleteItem:                        ;Deletes selected rows
MsgBox, 4100, Delete Address?, Delete Address? Click Yes or No?
IfMsgBox No
    Return
.
.                                (code for deleting rows)
.
Return
```

Now there is a warning before the ultimate deletion (see Figure 5). Click No and nothing happens. The option number 4 calls the Yes/No box. The option number 4096 makes it an always-on-top window. Combine the two (4 + 4096 = 4100) to indicate both options are active.



Figure 5. Click Yes to continue with the delete.

## Backing Up Data

What if you accidentally delete an item by a mouse slip to Delete after a right-click? With CTRL+A and right-click, it's was possible to lose everything without any warning. You add put incremental backup in the UpdateFile() () function, but then a new file would be created every time a minor change is made. I decided to create a backup every time the app is loaded or reloaded:

```
FileCopy, AddressBook.txt, AddressBook%A_Now%.txt
```

The built-in *A\_Now* timestamp is used the make the backup file unique. If you get too many files, delete some of the older ones. If you need to restore, delete *AddressBook.txt* and change the name of one of the backups to *AddressBook.txt*.

## Minimized Window Problem

I found that the saved window location and size parameter were unusable if the window was minimize when the UpdateFile() function ran. The following code was added using the WinGet command with the MinMax option:

```
WinGet, Min, MinMax, Address Book
If Min = -1
    WinRestore, Address Book
```

If the window is minimized (*Min = -1*), then the window is restored (WinRestore command) before saving the location and size parameters.

## A Last Minute Fix for Blank Date

I noticed that when adding new rows, the Birthday would default to the current date even though I didn't want any date at all. There is a option that when added to the *DateTime* control which both makes the default value blank and adds a checkbox for disabling the data (which also makes the value blank):

```
Gui, Add, DateTime, ys vAddr9 ChooseNone, LongDate
```

Add the *ChooseNone* option to implement a blank date selection which toggles with a checkbox, see Figure 6.

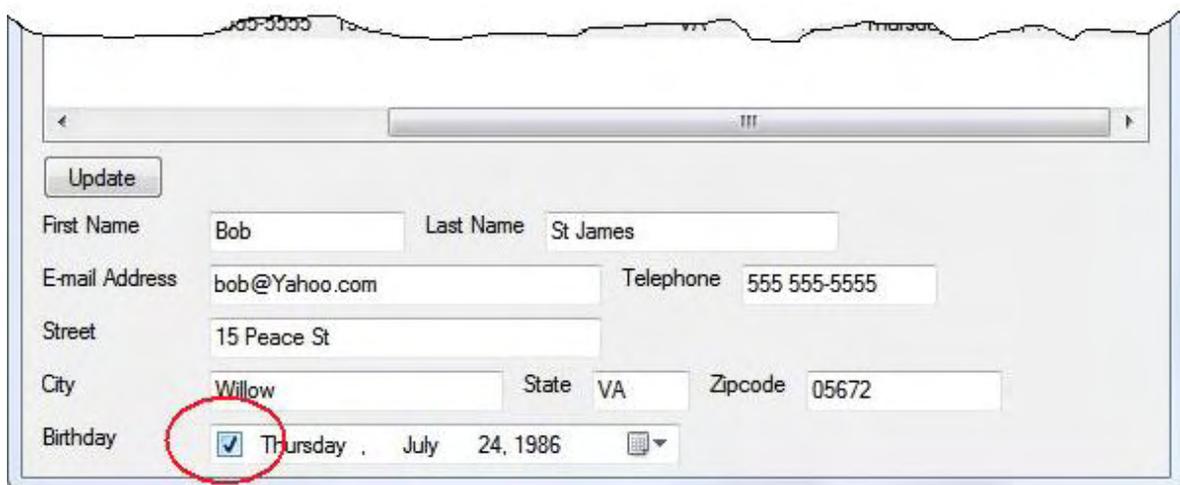


Figure 6. The ChooseNone option for the DateTime GUI control adds a checkbox to toggle the data on and off.

A few lines of code are required for the *AddItem* label:

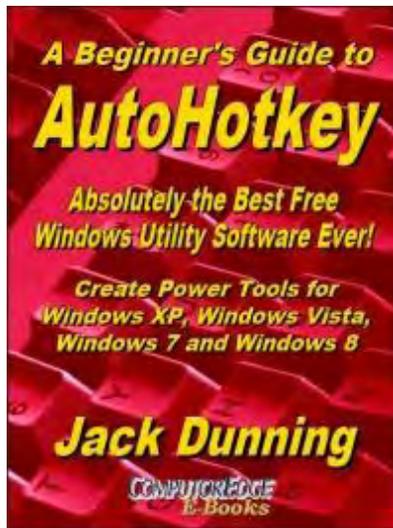
```
If Addr9 =          ; Setup Column 10 date format
  Addr10 := ""
Else
  FormatTime, Addr10, %Addr9%, dddd MMMM d, yyyy
```

If the checkbox is unchecked, the *BirthDay* displays blank.

## AddressBook.ahk and AddressBook.exe Files

You can find the complete *AddressBook.ahk* AutoHotkey script and the compiled version *AddressBook.ahk* at the *ComputerEdge* AutoHotkey Dropbox site ([www.dropbox.com/sh/4qu48lyqtixdg7t/QdMY1dNuy7](http://www.dropbox.com/sh/4qu48lyqtixdg7t/QdMY1dNuy7)) in the ZIP file *AddressBook.zip*. You can also find the complete code listing to view the changes above in context (or for copy-and-paste) at the end of this column after the cool advertising for my two AutoHotkey e-books.

\* \* \*



Now available in e-book format from Amazon, Jack's *A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8* ([www.amazon.com/gp/product/B009SI3F52/ref=as\\_li\\_ss\\_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B009SI3F52&linkCode=as2&tag=comput0b9-20](http://www.amazon.com/gp/product/B009SI3F52/ref=as_li_ss_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B009SI3F52&linkCode=as2&tag=comput0b9-20)).

Building Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8, AutoHotkey is the most powerful, flexible, *free* Windows utility software available. Anyone can instantly add more of the functions that they want in all of their Windows programs, whether installed on their computer or while working on the Web. AutoHotkey has a universality not found in any other Windows utility—free or paid.

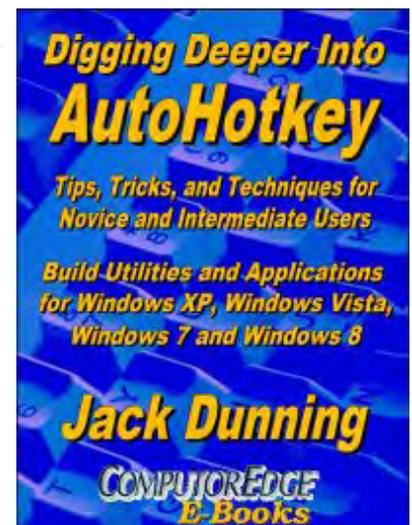
Based upon the series of articles in *ComputerEdge*, Jack takes you through his learning experience as he explores writing simple AutoHotkey scripts for adding repetitive text in any program or on the Web, running programs with special hotkeys or gadgets, manipulating the size and screen location of windows, making any window always-on-top, copying and moving

files, and much more. Each chapter builds on the previous chapters.

For an EPUB (iPad, NOOK, etc.) version of *A Beginner's Guide to AutoHotkey* click here! ([computoredgebooks.com/A-Beginners-Guide-to-AutoHotkey-EPUB-format-iPad-Nook-etc-AUTOHOTKEY-1.htm](http://computoredgebooks.com/A-Beginners-Guide-to-AutoHotkey-EPUB-format-iPad-Nook-etc-AUTOHOTKEY-1.htm))

\* \* \*

Jack's latest AutoHotkey book which is comprised of updated, reorganized and indexed columns from the last six months is now available at Amazon for Kindle hardware ([www.amazon.com/gp/product/B00CTACUMK/ref=as\\_li\\_ss\\_tl?](http://www.amazon.com/gp/product/B00CTACUMK/ref=as_li_ss_tl?)



[ie=UTF8&camp=1789&creative=390957&creativeASIN=B00CTACUMK&linkCode=as2&tag=comput0b9-20](http://www.amazon.com/gp/product/B009SI3F52/ref=as_li_ss_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00CTACUMK&linkCode=as2&tag=comput0b9-20) (or free software) users. Since the columns were not all written in a linear fashion, the book has been reorganized and broken up into parts by topic. The book is not for the complete beginner since it builds on the information in *A Beginner's Guide to AutoHotkey* ([www.amazon.com/gp/product/B009SI3F52/](http://www.amazon.com/gp/product/B009SI3F52) ref=as\_li\_ss\_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B009SI3F52&linkCode=as2&tag=comput0b9-20). However, if a person is reasonably computer literate, they could go directly to this book for ideas and techniques without the first book.

If you've been following along with my AutoHotkey columns, then there is little new information in the book (although I have added more clarification for techniques I felt were either confusing or wrong). The only reason I can see to buy it would be as a handy reference. The AutoHotkey commands used are included in a special index to the chapters in which they appear. Even I can't remember everything I wrote.

For an EPUB (iPad, NOOK, etc.) version of Digging Deeper into AutoHotkey click here! ([computoredgebooks.com/Digging-Deeper-into-AutoHotkey-EPUB-format-iPad-Nook-etc-AUTOHOTKEY-2.htm](http://computoredgebooks.com/Digging-Deeper-into-AutoHotkey-EPUB-format-iPad-Nook-etc-AUTOHOTKEY-2.htm))

\* \* \*

### AddressBook.ahk Script (Copy-and-Paste)

OnExit, UpdateFile

SelectedRow := 0

Gui +AlwaysOnTop +Resize

Gui, Add, ListView, sort -ReadOnly r10 w800 vMyListView gMyListview, Last Name  
| First Name | E-mail | Telephone | Street | City | State | Zip | | Birthday

Gui, Add, Button, section gAddItem, Add to List

Gui, Add, Text, w75 section , First Name

Gui, Add, Edit, w100 ys vAddr2, First Name

Gui, Add, Text, ys, Last Name

Gui, Add, Edit, w150 ys vAddr1, Last Name

Gui, Add, Text, w75 xm section, E-mail Address

Gui, Add, Edit, w200 ys vAddr3, E-mail Address

Gui, Add, Text, ys, Telephone

Gui, Add, Edit, w100 ys vAddr4, Telephone

Gui, Add, Text, w75 xm section, Street

Gui, Add, Edit, w200 ys vAddr5, Street

Gui, Add, Text, w75 xm section, City

Gui, Add, Edit, w150 ys vAddr6, City

Gui, Add, Text, ys, State

Gui, Add, Edit, w50 ys vAddr7, State

Gui, Add, Text, ys, Zipcode

Gui, Add, Edit, w100 ys vAddr8, Zipcode

Gui, Add, Text, w75 xm section, Birthday

Gui, Add, DateTime, ys vAddr9 ChooseNone, LongDate

IfExist, AddressBook.txt ;Add data from AddressBook.txt to ListView

```
{
FileCopy, AddressBook.txt, AddressBook%A_Now%.txt ;incremental backup
Loop, Read, AddressBook.txt
```

```
{
If (A_index = 1 and SubStr(A_LoopReadLine, 1, 1) = "x")
```

```
{
WinPos := A_LoopReadLine
Continue
}
```

```
Else
{
Loop, Parse, A_LoopReadLine , CSV
{
```

```

RowData%A_Index% := A_LoopField
}
If RowData9 = ; Setup Column 10 date format
RowData10 := ""
Else
FormatTime, RowData10, %RowData9%, dddd MMMM d, yyyy

LV_Add("", RowData1,RowData2,RowData3,RowData4
,RowData5,RowData6,RowData7,RowData8,RowData9,RowData10)
}
}
}

```

```
SizeCols()
```

```

Menu, MycontextMenu, Add, Insert Address, InsertItem
Menu, MyContextMenu, Add, Send E-mail, EmailName
Menu, MyContextMenu, Add, How old?, Age
Menu, MyContextMenu, Add, Edit, EditItem
Menu, MyContextMenu, Add, Delete, DeleteItem
Menu, Tray, Add, Show Address Book, ShowAddressBook

```

```

IfExist, AddressBook.txt
{
Gui, Show, %WinPos% , Address Book
}
Else
{
WinGetPos,X1,Y1,W1,H1,Program Manager
X2 := W1-800
Gui, Show, x%x2% y50 , Address Book
}

```

```

Hotkey, ^!a, ShowAddressBook
Return

```

```

ShowAddressBook:
Gui, Show,, Address Book
Return

```

```

MyListView:
If A_GuiEvent = e ;Finished editing first field of a row
LV_ModifyCol(1,"Sort")
If A_GuiEvent = ColClick ;Clicked column header
{
If A_EventInfo = 10 ;Number of column header clicked
LV_ModifyCol(9,"SortDesc")
}
UpdateFile()
Return

```

```

GuiContextMenu: ; Launched in response to a right-click or press of the Apps key.
if A_GuiControl <> MyListView ; Display the menu only for clicks inside the ListView.
Return
LV_GetText(ColText, A_EventInfo,1) ;Gather column data in string EditText
EditText := ColText
Loop 9
{
LV_GetText(ColText, A_EventInfo, A_Index+1)

```

```
EditText := EditText . "|" . ColText
}
```

```
Menu, MyContextMenu, Show, %A_GuiX%, %A_GuiY%
return
```

InsertItem: ;Adds formatted name and address to any document

```
StringSplit, RowData, EditText, |
SendInput, !{Escape}
SendInput, %RowData2% %RowData1%`n`n%RowData5%`n`n%RowData6%, %RowData7% %RowData8%`n`n
Return
```

EmailName: ;Opens new e-mail window with To: address

```
StringSplit, RowData, EditText, |
Run, mailto:%RowData2% %RowData1%<%RowData3%>?subject=This is the subject line
&body=This is the message body's text.
Return
```

Age: ;Calculates age

```
StringSplit, RowData, EditText, |
HowOld(RowData9,A_Now)
MsgBox, %RowData2% %RowData1% Born: %RowData10%`n`n%Years% Years %Months% Months %Days% Days
Return
```

EditItem: ;Move row from ListView columns into edit fields

```
SelectedRow := LV_GetNext()
StringSplit, RowData, EditText, |
Loop, 9
{
GuiControl, ,Addr%A_Index%, % Rowdata%A_Index%
}
GuiControl, ,Button1, Update
Return
```

DeleteItem: ;Deletes selected rows

```
MsgBox, 4100, Delete Address?, Delete Address? Click Yes or No?
IfMsgBox No ;Don't delete
Return
RowNumber = 0 ; This causes the first iteration to start the search at the top.
Loop
{
; Since deleting a row reduces the RowNumber of all other rows beneath it,
; subtract 1 so that the search includes the same row number that was previously
; found (in case adjacent rows are selected):
RowNumber := LV_GetNext(RowNumber - 1)
if not RowNumber ; The above returned zero, so there are no more selected rows.
break
LV_Delete(RowNumber) ; Clear the row from the ListView.
}
UpdateFile()
Return
```

AddItem: ;Add new or update ListView row

```
Gui, Submit, NoHide
If Addr9 = ; Setup Column 10 date format
Addr10 := ""
Else
FormatTime, Addr10, %Addr9%, dddd MMMM d, yyyy
```

```
If SelectedRow = 0
```

```

{
LV_Add("", Trim(Addr1),Trim(Addr2),Trim(Addr3),Trim(Addr4)
,Trim(Addr5),Trim(Addr6),Trim(Addr7),Trim(Addr8), Trim(Addr9), Addr10)
}
else
{
LV_Modify(SelectedRow,"", Addr1,Addr2,Addr3,Addr4
,Addr5,Addr6,Addr7,Addr8,Addr9,Addr10)
LV_ModifyCol(1,"Sort")
SelectedRow := 0
GuiControl, ,Button1, Add to list
}

```

```

SizeCols()
UpdateFile()
Return

```

```

UpdateFile: ;When exiting
DetectHiddenWindows On
UpdateFile()
ExitApp
Return

```

```

GuiSize: ; Widen or narrow the ListView in response to the user's resizing of the window.
if A_EventInfo = 1 ; The window has been minimized. No action needed.
return
; Otherwise, the window has been resized or maximized. Resize the ListView to match.
GuiControl, Move, MyListView, % "W" . (A_GuiWidth - 20)
Return

```

```

UpdateFile() ;Saves data to file when ListView updated
{
FileDelete, AddressBook.txt
WinGet, Min, MinMax, Address Book
If Min = -1
WinRestore, Address Book
WinGetPos, X, Y, Width, Height, Address Book
Width -= 16
Height -= 38
FileAppend, x%x% y%y% w%Width% h%Height% `n, AddressBook.txt
Loop % LV_GetCount()
{
RowNum := A_Index
Loop, 8
{
LV_GetText(Text, RowNum, A_Index)
TrimText := Trim(Text)
FileAppend, "%TrimText%" ,, AddressBook.txt
}
LV_GetText(Text, RowNum, 9)
TrimText := Trim(Text)
FileAppend, "%TrimText%" n, AddressBook.txt
}
}

```

```

SizeCols() ;resize all columns, hide Column 9, Column 10 NoSort
{
Loop, 8
{
LV_ModifyCol(A_Index,"AutoHdr")

```

```

}
LV_ModifyCol(9, 0)
LV_ModifyCol(10,"AutoHdr")
LV_ModifyCol(10,"NoSort")
}

#IfWinActive, Address Book ; CTRL+A to Select All
^a::LV_Modify(0,"Select")
#IfWinActive

HowOld(FromDay,ToDay) ;Age calculation function
{
FromDay := substr(FromDay,1,8)
ToDay := Substr(ToDay,1,8)
Global Years,Months,Days

; If born on February 29

If SubStr(FromDay,5,4) = 0229 and Mod(SubStr(ToDay,1,4), 4) != 0 and SubStr(ToDay,5,4) = 0228
PlusOne = 1

ThisMonth := SubStr(ToDay,1,6)

; Set ThisMonthLength equal to next month

ThisMonthLength := % SubStr(ToDay,5,2) = "12" ? SubStr(ToDay,1,4)+1 . "01"
: SubStr(ToDay,1,4) . Substr("0" . SubStr(ToDay,5,2)+1,-1)

; Days in this month saved in ThisMonthLength

EnvSub, ThisMonthLength, %ThisMonth%, d

; Set ThisMonthday to FromDay or (if FromDay higher) last day of this month

If SubStr(FromDay,7,2) > ThisMonthLength
ThisMonthDay := ThisMonth . ThisMonthLength
Else
ThisMonthDay := ThisMonth . SubStr(FromDay,7,2)

; Calculate last month's length

LastMonthLength := % SubStr(ToDay,5,2) = "01" ? SubStr(ToDay,1,4)-1 . "12"
: SubStr(ToDay,1,4) . Substr("0" . SubStr(ToDay,5,2)-1,-1)
LastMonth := LastMonthLength

; Days in last month saved in LastMonthLength

EnvSub, LastMonthLength, %ThisMonth% ,d
LastMonthLength := LastMonthLength*(-1)

; Set LastMonthday to FromDay or (if FromDay higher) last day of last month

If SubStr(FromDay,7,2) > LastMonthLength
LastMonthDay := LastMonth . LastMonthLength
Else
LastMonthDay := LastMonth . SubStr(FromDay,7,2)

; Calculate years

Years := % SubStr(ToDay,5,4) - SubStr(FromDay,5,4) < 0 ? SubStr(ToDay,1,4)-SubStr(FromDay,1,4)-1

```

```
: SubStr(ToDay,1,4)-SubStr(FromDay,1,4)
```

```
; Calculate months
```

```
Months := % SubStr(ToDay,5,2)-SubStr(FromDay,5,2) < 0 ? SubStr(ToDay,5,2)-SubStr(FromDay,5,2)+12
: SubStr(ToDay,5,2)-SubStr(FromDay,5,2)
```

```
Months := % SubStr(ToDay,7,2) - SubStr(ThisMonthDay,7,2) < 0 ? Months -1 : Months
Months := % Months = -1 ? 11 : Months
```

```
; Calculate days
```

```
TodayDate := SubStr(ToDay,1,8) ; Remove any time portion of stamp
EnvSub, ThisMonthDay, ToDayDate , d
EnvSub, LastMonthDay, ToDayDate , d
```

```
Days := % ThisMonthDay <= 0 ? -1*ThisMonthDay : -1*LastMonthDay
```

```
; If February 28
```

```
Years := % plusone = 1 ? Years +1 : Years
days := % plusone = 1 ? 0 : days
```

```
If (TodayDate <= FromDay)
Years := 0, Months := 0, Days := 0
```

```
; MsgBox, %Years% Years, %Months% Months, %Days% Days
```

```
}
```

Jack is the publisher of *ComputerEdge* Magazine. He's been with the magazine since first issue on May 16, 1983. Back then, it was called *The Byte Buyer*. His Web site is [www.computoredge.com](http://www.computoredge.com). He can be reached at [ceeditor@computoredge.com](mailto:ceeditor@computoredge.com). Jack is now in the process of updating and compiling his hundreds of articles and columns into e-books. Currently available:

Just Released! *Hidden Windows Tools for Protecting, Problem Solving and Troubleshooting Windows 8, Windows 7, Windows Vista, and Windows XP Computers* ([www.amazon.com/gp/product/B00B8Z2ASG/ref=as\\_li\\_ss\\_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00B8Z2ASG&linkCode=as2&tag=comput0b9-20](http://www.amazon.com/gp/product/B00B8Z2ASG/ref=as_li_ss_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B00B8Z2ASG&linkCode=as2&tag=comput0b9-20)).

Jack's *A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8* ([www.computoredge.com/AutoHotkey/AutoHotkey\\_Books\\_for\\_Beginners\\_and\\_Novices.html](http://www.computoredge.com/AutoHotkey/AutoHotkey_Books_for_Beginners_and_Novices.html)) and *Digging Deeper Into AutoHotkey* ([www.computoredge.com/AutoHotkey/AutoHotkey\\_Books\\_for\\_Beginners\\_and\\_Novices.html](http://www.computoredge.com/AutoHotkey/AutoHotkey_Books_for_Beginners_and_Novices.html)).

Our second compilation of stupid *ComputerEdge* cartoons from 2011 and 2012 is now available at Amazon! *That Does Not Compute, Too! ComputerEdge Cartoons, Volume II: "Do You Like Windows 8 or Would You Prefer an Apple?"* ([www.amazon.com/gp/product/B009JY65QQ/ref=as\\_li\\_ss\\_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B009JY65QQ&linkCode=as2&tag=comput0b9-20](http://www.amazon.com/gp/product/B009JY65QQ/ref=as_li_ss_tl?ie=UTF8&camp=1789&creative=390957&creativeASIN=B009JY65QQ&linkCode=as2&tag=comput0b9-20))

Currently only at Amazon.com, *Jack's Favorite Free Windows Programs: What They Are, What They Do, and How to Get Started!* ([www.amazon.com/gp/product/B008BLUZRS/ref=as\\_li\\_ss\\_tl?ie=UTF8&tag=comput0b9-20](http://www.amazon.com/gp/product/B008BLUZRS/ref=as_li_ss_tl?ie=UTF8&tag=comput0b9-20)).

Available from Amazon, *Misunderstanding Windows 8: An Introduction, Orientation, and How-to for Windows 8* ([www.amazon.com/gp/product/B007RMC8RH8/ref=as\\_li\\_ss\\_tl?ie=UTF8&tag=comput0b9-20](http://www.amazon.com/gp/product/B007RMC8RH8/ref=as_li_ss_tl?ie=UTF8&tag=comput0b9-20))! Also available at Barnes and Noble ([www.barnesandnoble.com/w/misunderstanding-windows-8-jack-dunning/1109995715?ean=2940014229463](http://www.barnesandnoble.com/w/misunderstanding-windows-8-jack-dunning/1109995715?ean=2940014229463)) and ComputerEdge E-Books ([www.computoredgebooks.com/Windows-Tips-and-Tricks\\_c4.htm?sourceCode=writer](http://www.computoredgebooks.com/Windows-Tips-and-Tricks_c4.htm?sourceCode=writer)).

Available exclusively from Amazon, *Windows 7 Secrets Four-in-One E-Book Bundle* ([www.amazon.com/gp/product/](http://www.amazon.com/gp/product/)

B00801M5GS/ref=as\_li\_ss\_tl?ie=UTF8&tag=comput0b9-20),

*Getting Started with Windows 7: An Introduction, Orientation, and How-to for Using Windows 7* ([www.amazon.com/gp/product/B007AL672M/?tag=comput0b9-20](http://www.amazon.com/gp/product/B007AL672M/?tag=comput0b9-20)),

*Sticking with Windows XP—or Not? Why You Should or Why You Should Not Upgrade to Windows 7* ([www.amazon.com/gp/product/B00758J4L6/ref=as\\_li\\_ss\\_tl?ie=UTF8&tag=comput0b9-20](http://www.amazon.com/gp/product/B00758J4L6/ref=as_li_ss_tl?ie=UTF8&tag=comput0b9-20)),

and *That Does Not Compute!* ([www.amazon.com/gp/product/B0052MMUX6/ref=as\\_li\\_ss\\_tl?ie=UTF8&tag=comput0b9-20](http://www.amazon.com/gp/product/B0052MMUX6/ref=as_li_ss_tl?ie=UTF8&tag=comput0b9-20)),  
brilliantly drawn cartoons by Jim Whiting for really stupid gags by Jack about computers and the people who use them.

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## Wally Wang's Apple Farm

“Appropriate Technology” by Wally Wang

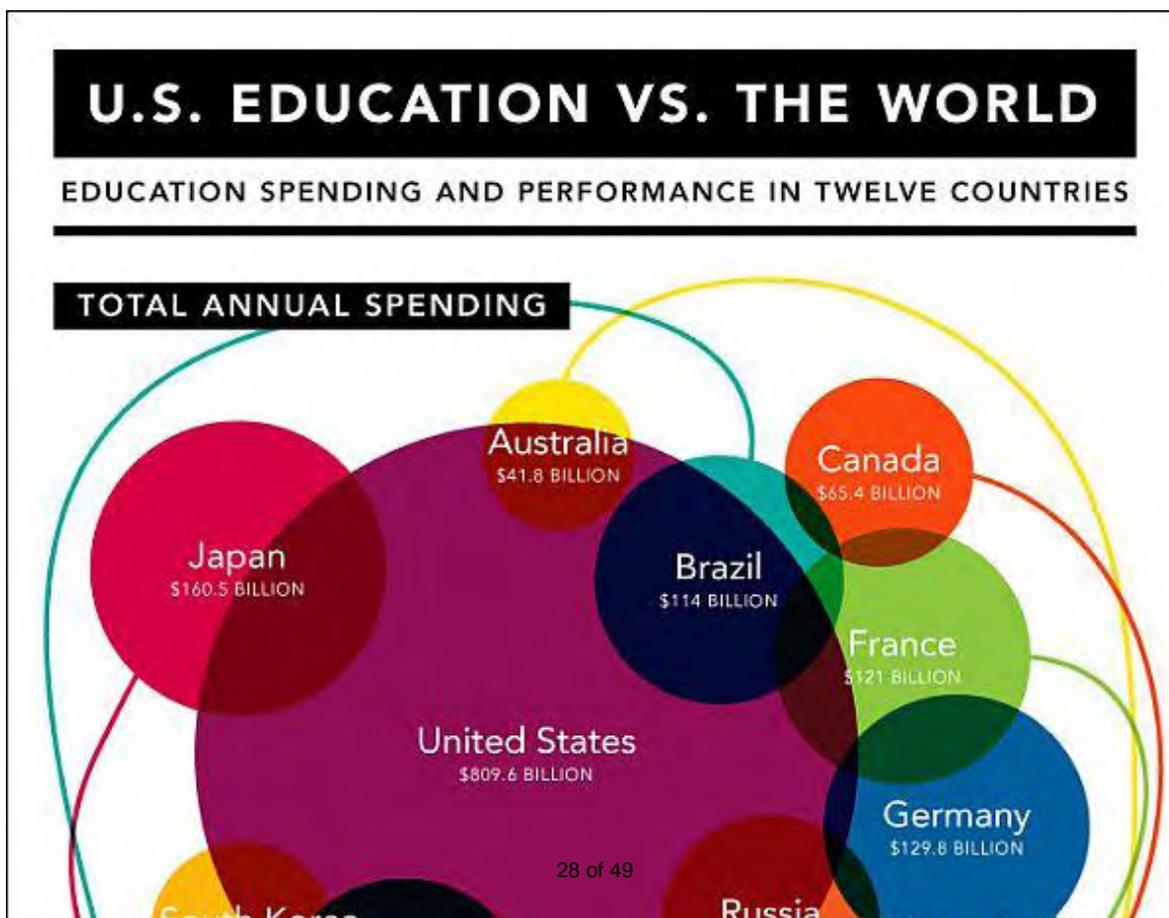
Appropriate Technology; March of the iPad Killers; Audio Hyperlinking; 3D Printers are Coming; Android is the New Windows; The Future of Laptops; Hidden Develop Menu.

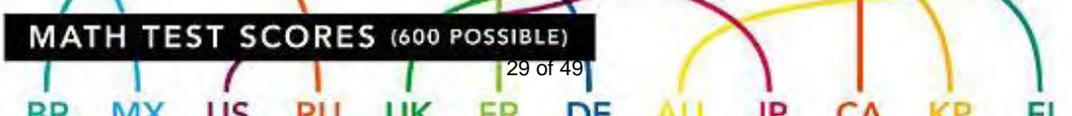
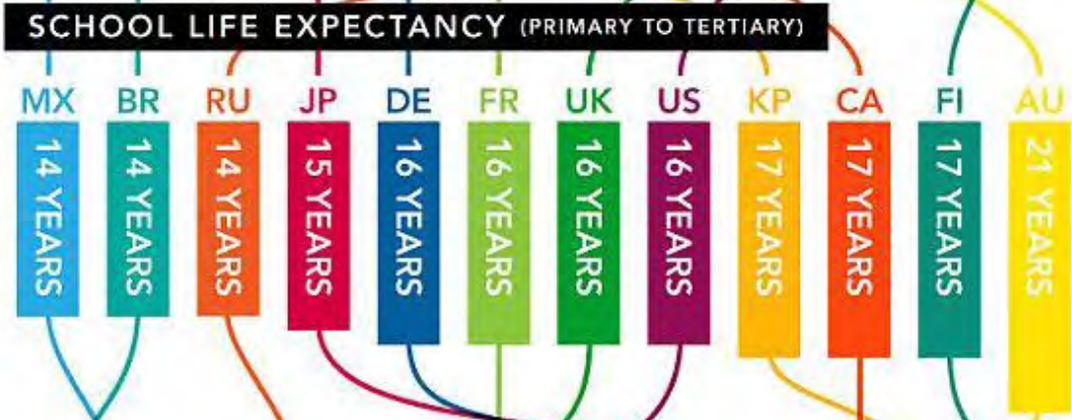
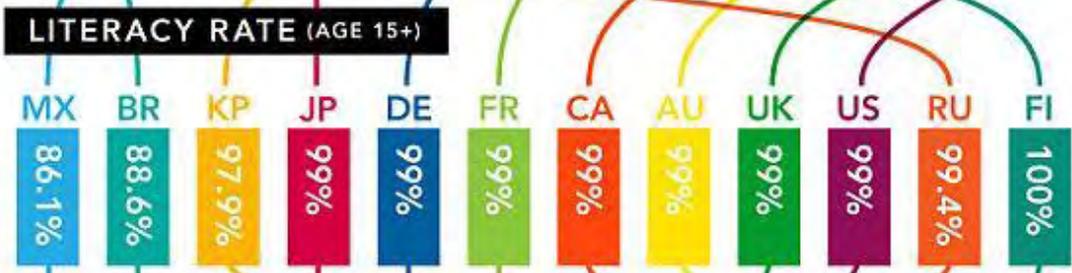
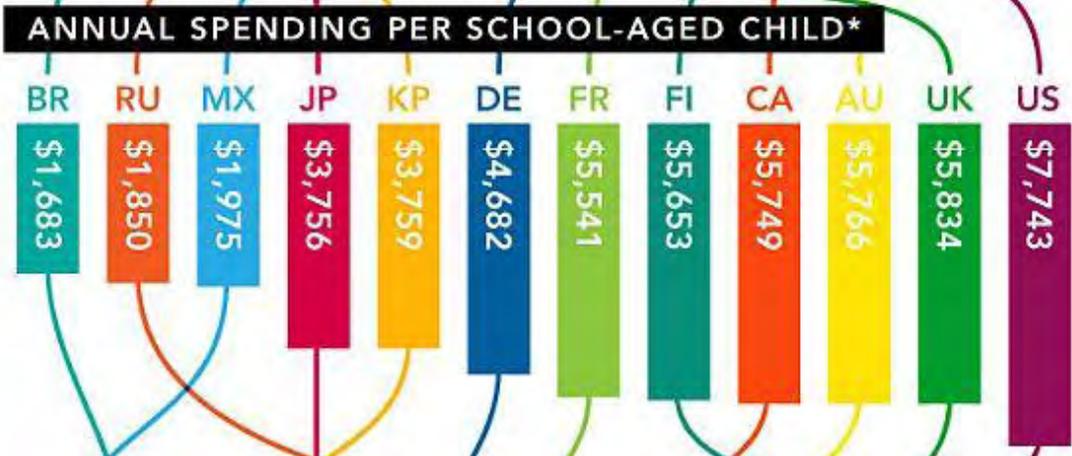
# Wally Wang's Apple Farm

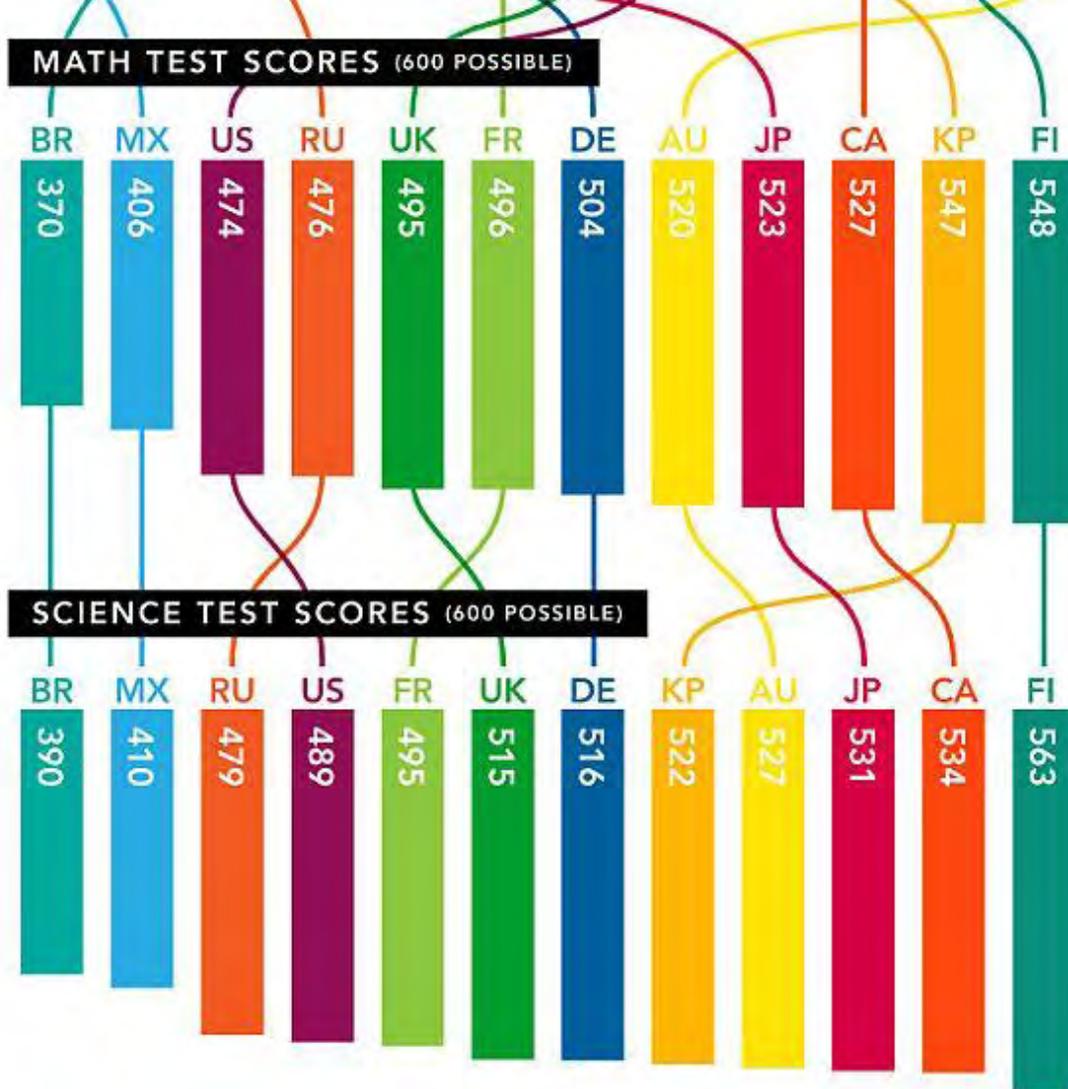
Apple recently won a \$30 million dollar contract ([www.apple.com/pr/library/2013/06/19Apple-Awarded-30-Million-iPad-Deal-From-LA-Unified-School-District.html](http://www.apple.com/pr/library/2013/06/19Apple-Awarded-30-Million-iPad-Deal-From-LA-Unified-School-District.html)) to provide every student in the Los Angeles school district with an iPad by the year 2014. While this is great for Apple and provides students with a versatile tablet (which critics had dismissed back in 2010 as worthless), the big problem with providing iPads or any gadgets to students is that technology can only solve technological problems, but education involves more than technology ([www.infoworld.com/d/consumerization-of-it/giving-kids-ipads-wont-solve-the-education-challenge-224485](http://www.infoworld.com/d/consumerization-of-it/giving-kids-ipads-wont-solve-the-education-challenge-224485)).

The United States already spends more money per student than any country in the world, yet American students tend to score much lower in math and science than other countries. How can America spend so much on education and get so little back in return?

The answer is never more spending. Between ineffective teachers (who can rarely be fired despite blatant incompetence), incompetent school administrators (who spend money on themselves rather than for its intended purpose), and unmotivated students, handing students an iPad can help some students, but won't likely help everyone as much as schools seem to hope they will. After all, look how many decades schools have had Windows PCs in the classroom, yet American math and science test scores still remain low compared to the rest of the world.



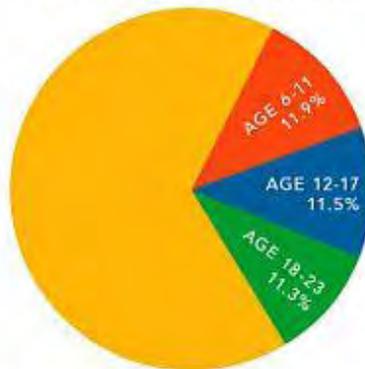




## APPENDIX

- AU** AUSTRALIA
- BR** BRAZIL
- CA** CANADA
- FI** FINLAND
- FR** FRANCE
- DE** GERMANY
- JP** JAPAN
- MX** MEXICO
- RU** RUSSIA
- KP** SOUTH KOREA
- UK** UNITED KINGDOM
- US** UNITED STATES

\*SCHOOL-AGED CHILDREN = 33.7% TOTAL POPULATION



According to the United Nations, the world population in 2000 was 6.062 Billion.

The UN considers ages 6-23 to be school aged.

## SOURCES

- <https://www.cia.gov/library/publications/the-world-factbook/index.html>
- [http://www.geographic.org/country\\_ranks/educational\\_score\\_performance\\_country\\_ranks\\_2009\\_oecd.html](http://www.geographic.org/country_ranks/educational_score_performance_country_ranks_2009_oecd.html)
- [http://www.un.org/esa/population/publications/2003monitoring/WorldPopMonitoring\\_2003.pdf](http://www.un.org/esa/population/publications/2003monitoring/WorldPopMonitoring_2003.pdf)

Figure 1. America spends more on education yet scores lower in math and science.

Americans tend to think technology can be a "magic bullet" that can magically solve every problem if only enough money is spent on the technology. The real problem has nothing to do with technology but everything to do with the American school system itself.

In the classic book *How Children Fail* ([www.amazon.com/gp/product/0201484021/ref=as\\_li\\_qf\\_sp\\_asin\\_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=0201484021&linkCode=as2&tag=the15minmovme-20](http://www.amazon.com/gp/product/0201484021/ref=as_li_qf_sp_asin_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=0201484021&linkCode=as2&tag=the15minmovme-20)), author John Holt explains how children fail because of the way the American education system is set up to create anxiety in students and punish students for failing at every step of the way, completely ignoring the fact that failing is the way people learn any skill. Once you make failure something to be avoided, you also make learning something to be avoided because the less willing you are to learn, the less likely you'll make a mistake.

Most likely the Los Angeles school district isn't going to change the way they punish students for failure through poor grades and the emphasis that they need to get the right answer the first time, every time. Instead, the Los Angeles school district will simply continue creating a fearful atmosphere that avoids failure while handing kids an iPad, as if this will magically solve all the learning woes of the American educational system.

Despite the iPads versatility, don't expect test scores in the Los Angeles school district to improve much, not because the iPad isn't useful, but because the iPad alone can't fix the problems inherent in the American educational system.

In many other countries, teachers are well trained and highly paid, which means teaching is a respected and attractive field. In America, teachers are poorly paid. Even worse is that education majors in college (the future teachers of America) tend to have the lowest SAT scores ([www.statisticbrain.com/iq-estimates-by-intended-college-major/](http://www.statisticbrain.com/iq-estimates-by-intended-college-major/)) of all the college majors. When you have the lowest scoring students going into teaching, how can you possibly have a large number of high quality teachers?

Of course, low SAT scores doesn't mean teachers can't be dedicated and sincere. Yet the fact remains that education majors consistently have the lowest scores of most college majors. Paying teachers more is partially the answer, but will paying today's teachers more improve education when so many of today's teachers are unmotivated and incompetent in the first place? Pass out iPads to a class led by an incompetent teacher and you're going to get poorly educated students whether they have an iPad or not. The iPad, just like putting a Windows PC in every classroom, is irrelevant.

If America really wants to improve their education system, they need to tackle the problem without relying on technology or additional funding. Only by solving education problems by improving the education system itself can any technology, such as the iPad, hope to make any difference for every student. Until then, more spending will just result in more expenses while the problem of poor education continues. Expect school administrators to continue scratching their head because they can't figure out why giving kids an iPad doesn't magically boost their math and science test scores dramatically, especially against kids in other countries who don't have an iPad or even a PC in their classrooms.

## March of the iPad Killers

When Apple introduced the iPad back in 2010, a horde of critics declared that the iPad was useless. Now that the iPad has proven popular, those same critics remain strangely silent.

In the meantime, these same critics rally behind the latest rival tablet, claiming that the iPad is useless, but rival tablets are useful because they look and act just like an iPad. The first of these iPad killers was Motorola's Xoom. The Xoom failed because the Android operating system wasn't refined enough to be useful and there weren't enough tablet apps available. Motorola even priced the Xoom the same as the iPad and spent millions on a Super Bowl TV commercial ([www.youtube.com/watch?v=ZBUoLYOWR8I](http://www.youtube.com/watch?v=ZBUoLYOWR8I)). In return, Motorola sold a few hundred thousand units, demonstrating once again the pointlessness of spending millions on advertising promoting a product that isn't as good as its competitors.

The next iPad killer was Hewlett-Packard's TouchPad that ran the webOS operating system that Hewlett-Packard spent \$1.2 billion acquiring with their purchase of Palm Computing. Like Motorola, Hewlett-Packard priced the TouchPad at the same price as the iPad while lacking enough compelling apps. Forty-nine days after introducing the TouchPad, Hewlett-Packard announced that they were discontinuing the TouchPad and dropping the price to \$99 to get rid of them.

The next iPad killer was Research in Motion's Playbook, which couldn't use e-mail unless you paired it up with a Blackberry phone. Because of its limitations and its lack of compelling apps, the Playbook quickly faded from view, just like the Xoom and the TouchPad before it.

The one compelling advantage these iPad killers heavily promoted was the ability to run Adobe Flash. Of course, none of these

companies mentioned that Adobe Flash ran poorly on mobile operating systems and that Adobe would eventually give up trying to get Flash to run ([news.cnet.com/8301-30685\\_3-57321157-264/adobe-abandons-flash-plug-in-for-mobile-devices-report/](http://news.cnet.com/8301-30685_3-57321157-264/adobe-abandons-flash-plug-in-for-mobile-devices-report/)) on mobile devices. Now the one supposed advantage of rival tablets (the ability to run Flash, however poorly) was completely negated.

Microsoft's latest entry into the iPad killer category was the Surface tablet running Windows RT. Repeating the mistakes of Research in Motion, Motorola, and Hewlett-Packard, Microsoft priced the Surface tablet at the same price as the iPad (while charging \$100+ for an "optional" keyboard that was really a necessity) and didn't offer any compelling apps that would run on it. Microsoft's sole advantage, Microsoft Office, didn't even run as a Windows RT app but as a desktop program instead.

The mistakes are clear. To compete against Apple, rivals keep offering inferior products at the same price. These rival products are inferior because they lack basic features such as e-mail (in the Playbook) or lack apps. Android tablets are slowly catching up with dedicated tablet apps and lower prices, but Microsoft is still struggling to develop enough Windows RT apps while Hewlett-Packard, Motorola, and Research in Motion have given up on their iPad killer tablets.

The real key to competing against Apple isn't to mimic the hardware and assume people will eagerly buy a half-finished, imitation product. The real key is to develop and release a useful product that doesn't feel like a rough draft, beta prototype.

Apple strives (not always successfully) to build products that anyone can use right away. Most other companies build products that require additional tinkering or hope that it will eventually be useful if you only wait a little longer and take the time to become tech-savvy enough to understand how to use it effectively.

The most vocal anti-Apple critics tend to be tech-savvy people who have spent decades invested in Microsoft technology and fear losing the power and control that their hard-earned knowledge has given them. If you made a great living as a slide ruler expert, how eagerly would you embrace pocket calculators that made your entire living obsolete and all your knowledge completely irrelevant in today's society?

Such Microsoft supporters don't just hate Apple products but also hate and disparage Linux and anything else that threatens to make their knowledge of Windows obsolete. Rather than spend energy fighting against non-Microsoft technology, such people would be better off embracing new technology so they can become experts in these other fields as well.

Fighting against change is simply a losing battle, much like trying to parade out the next iPad killer rather than taking the time to create a great product that doesn't just compete against the iPad, but actually supersedes it. If companies like Research in Motion, Hewlett-Packard, Motorola, and Microsoft really want to compete against Apple, they'll work to develop the next trail-blazing product instead of a pale copycat imitation.

Then again, that requires thought, planning, and imagination, and those qualities are harder to develop than just imitating a successful product, wasting millions on pointless advertising, and pretending that everything is just fine anyway. When you're always trying to follow the leader, you'll never have time to become a leader yourself unless you're lucky enough for the leader to stumble ahead of you.

The reason Microsoft has its lead in so many areas is because the former leaders shot themselves in the foot and failed to maintain their lead like CP/M-80, WordStar, WordPerfect, Lotus 1-2-3, NetWare, and dBASE. If these leaders didn't stumble and allow Microsoft to surpass them, would Microsoft be as powerful as they are today? Microsoft's dominance has less to do with their own technical expertise than with the incredible incompetence of the leaders they were chasing.

Microsoft's basic business strategy is to copy the leader and wait for the leader to stumble. This strategy has worked many times for Microsoft in killing Novell, WordPerfect, Borland International, Ashton-Tate, Nintendo, and Lotus Development, but when it fails to work, Microsoft winds up with losers like the Zune, Kin, and Silverlight. When Microsoft is the leader and stumbles, you wind up with products like Windows 8, Windows RT, Surface tablets, and possibly even the Xbox One.

Following the leader is the foundation of Microsoft's success, but when your success always relies on others being more incompetent than you, it's not really a sustainable strategy in the long run, especially if you become more incompetent than your rivals.

## Audio Hyperlinking

Apple recently patented the idea of audio hyperlinking. Just as ordinary hyperlinking embeds links in text that readers can click on to view additional information, audio hyperlinking ([`appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fmetahtml%2FPTO%2Fsearch-adv.html&r=3&p=1&f=G&l=50&d=PG01&S1=\(20130808.PD.+AND+700%2F94.CCLS.\)&OS=pd/8/8/2013+and+ccl/700/94&RS=\(PD/20130808+AND+CCL/700/94\)`](http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fmetahtml%2FPTO%2Fsearch-adv.html&r=3&p=1&f=G&l=50&d=PG01&S1=(20130808.PD.+AND+700%2F94.CCLS.)&OS=pd/8/8/2013+and+ccl/700/94&RS=(PD/20130808+AND+CCL/700/94))) allows listeners to hear something else, then go back to their original audio.

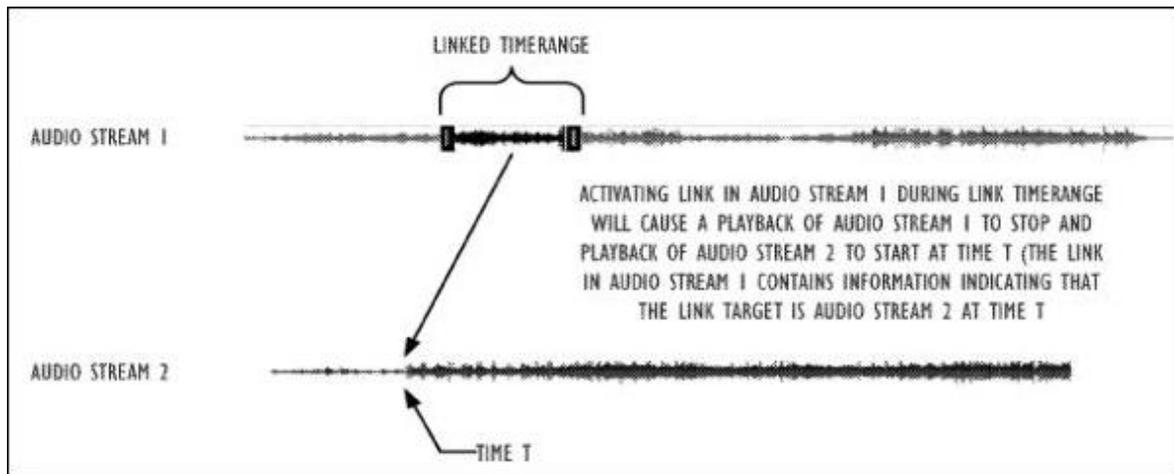


Figure 2. Apple's latest audio hyperlinking patent.

Such audio hyperlinks could interrupt streaming audio to play ads, or provide a way for listeners to voluntarily activate the hyperlink. For example, if you're listening to a lecture and want more information about a particular topic or book, an audio hyperlink could jump you to that additional information and then return you back to the audio stream so you could continue listening.

Most likely, audio hyperlinking will be used for inserting intrusive ads in streaming audio such as listening to music through Apple's upcoming iRadio. Although such ads will likely be mandatory, listeners could optionally activate that audio hyperlink if they wanted to order a product or just get more information about it.

This fall, expect new Apple products like iRadio, iOS 7, and OS X 10.9 to shake up the computer market. There's no guarantee that iRadio will be a hit (anyone remember Apple's failed social media network, Ping?), but its existence should give rivals ideas for how to copy Apple once more.

### 3D Printers are Coming

Staples is now selling 3D printers ([www.staples.com/Cube-3D-Printers/product\\_SS2044291](http://www.staples.com/Cube-3D-Printers/product_SS2044291)) while UPS is offering high-end 3D printers for store customers ([smallbiztrends.com/2013/08/ups-3d-printing.html](http://smallbiztrends.com/2013/08/ups-3d-printing.html)) in San Diego. Now you can visit a Microsoft Store to see 3D printers in person ([www.forbes.com/sites/tjmccue/2013/08/07/3d-printing-with-makerbot-in-microsoft-stores/](http://www.forbes.com/sites/tjmccue/2013/08/07/3d-printing-with-makerbot-in-microsoft-stores/)).

To see the versatility of 3D printing, a man is even creating a replica of an Aston Martin ([autos.yahoo.com/news/guy-building-skyline-based-aston-martin-db4-replica-193043575.html](http://autos.yahoo.com/news/guy-building-skyline-based-aston-martin-db4-replica-193043575.html)) using a 3D printer. Amazingly, he's made 72 percent of the car using only \$2,000 worth of materials for his 3D printer. Although the cost of an engine will likely boost his total investment higher, it will still be cheaper than buying or manufacturing those same car parts the old fashion way.



Figure 3. A 3D printer can make an Aston Martin replica.

The main idea of 3D printing is that it lowers the cost of manufacturing while increasing the availability of manufacturing tools to the public. Just as desktop publishing gave everyone the chance to become a publisher, so will 3D printers give everyone a chance to become a manufacturer to either design parts or manufacture items that they can sell to others.

The world of 3D printing promises to revolutionize the world in ways that have yet to be explored. If you want to stay on the cutting edge of technology, start learning about 3D printers today. If you want to stay stuck in the past, stick with dot-matrix printers and loudly dismiss 3D printers as useless as an iPad.

## Android is the New Windows

One reason why Windows dominated the operating system market was because so many major companies supported it from IBM and Hewlett-Packard to Dell Computers and Gateway. As long as everyone could get rich supporting Windows, that's the product everyone promoted.

Now as PC sales continue dropping and the cost of a Windows license represents a huge expense relative to the total cost of most computers, fewer companies are advocating a Windows-only approach.

Acer plans to focus less on Windows and more on Android and Chromebooks ([hothardware.com/News/Acer-to-Expand-Android-and-Chromebook-Offering-at-The-Expense-of-Windows/](http://hothardware.com/News/Acer-to-Expand-Android-and-Chromebook-Offering-at-The-Expense-of-Windows/)). While Acer continues to shift away from Windows, Microsoft continues pouring millions in commercials touting the advantage of Windows RT devices over the iPad. Unfortunately, Microsoft's latest ad promotes the Acer tablet running Windows RT at the same time Acer President Jim Wang recently told investors: "We are trying to grow our non-Windows business ([www.infoworld.com/t/microsoft-windows/acer-latest-tablet-maker-moving-away-the-windows-fold-224592](http://www.infoworld.com/t/microsoft-windows/acer-latest-tablet-maker-moving-away-the-windows-fold-224592)) as soon as possible. Android is very popular in smartphones and dominant in tablets...I also see a new market there for Chromebooks."

By manufacturing Surface tablets, Microsoft alienated their manufacturing partners who can't compete when they have to pay for a Windows license while Microsoft does not. It's no wonder that manufacturers are gravitating towards free operating systems like Android and Chrome OS. With companies like Acer, Hewlett-Packard, Asus, and Lenovo offering Windows alternatives with Android and Chrome OS, it's unlikely that Windows will retain its current market share for much longer.

When companies can't make money selling Windows devices, they'll simply switch to selling products that can make them money. Right now their best alternative may be Android and Chrome OS. Microsoft's Windows 8 strategy is to offer the same operating system

across multiple devices, but it looks like Android will reach that goal on PCs, tablets and smartphones long before Windows 8/RT can merge with Windows Phone 7.

### The Future of Laptops

If you want to see the future of laptops, forget about Microsoft's odd tile interface. Ideally the future laptop of tomorrow will be completely free from constant recharging. Apple's MacBook Airs offer all day battery life, but WeWi Telecommunications plans to introduce a rugged laptop running Ubuntu Linux that can run all day on solar power ([www.zdnet.com/first-solar-powered-linux-laptop-7000019183/](http://www.zdnet.com/first-solar-powered-linux-laptop-7000019183/)).

By using Ubuntu Linux, the SOL laptop avoids the added expense of licensing an operating system while also running an operating system that users can modify if they wish. Plus Linux offers plenty of free software to expand the versatility of the laptop.

WeWi Telecommunications hopes to get the cost of the laptop down to \$400 in a case that's rugged enough to survive in the outdoors of Africa. While the technical specifications of the SOL laptop aren't anything special (a relatively weak Atom processor), the laptop can bring computing to other parts of the world.

Linux may not be as popular as Windows, but there's no denying that Linux is cheaper for computer manufacturers to use along with having a reputation for being reliable as well. The more money Third World countries can spend on actual hardware to put computers in the hands of people, the less money these countries will need to waste paying for operating system license fees. To see which countries use Linux, visit this site ([royal.pingdom.com/2011/05/12/the-top-20-strongholds-for-desktop-linux/](http://royal.pingdom.com/2011/05/12/the-top-20-strongholds-for-desktop-linux/)) and notice that Linux seems especially popular in Third World countries.

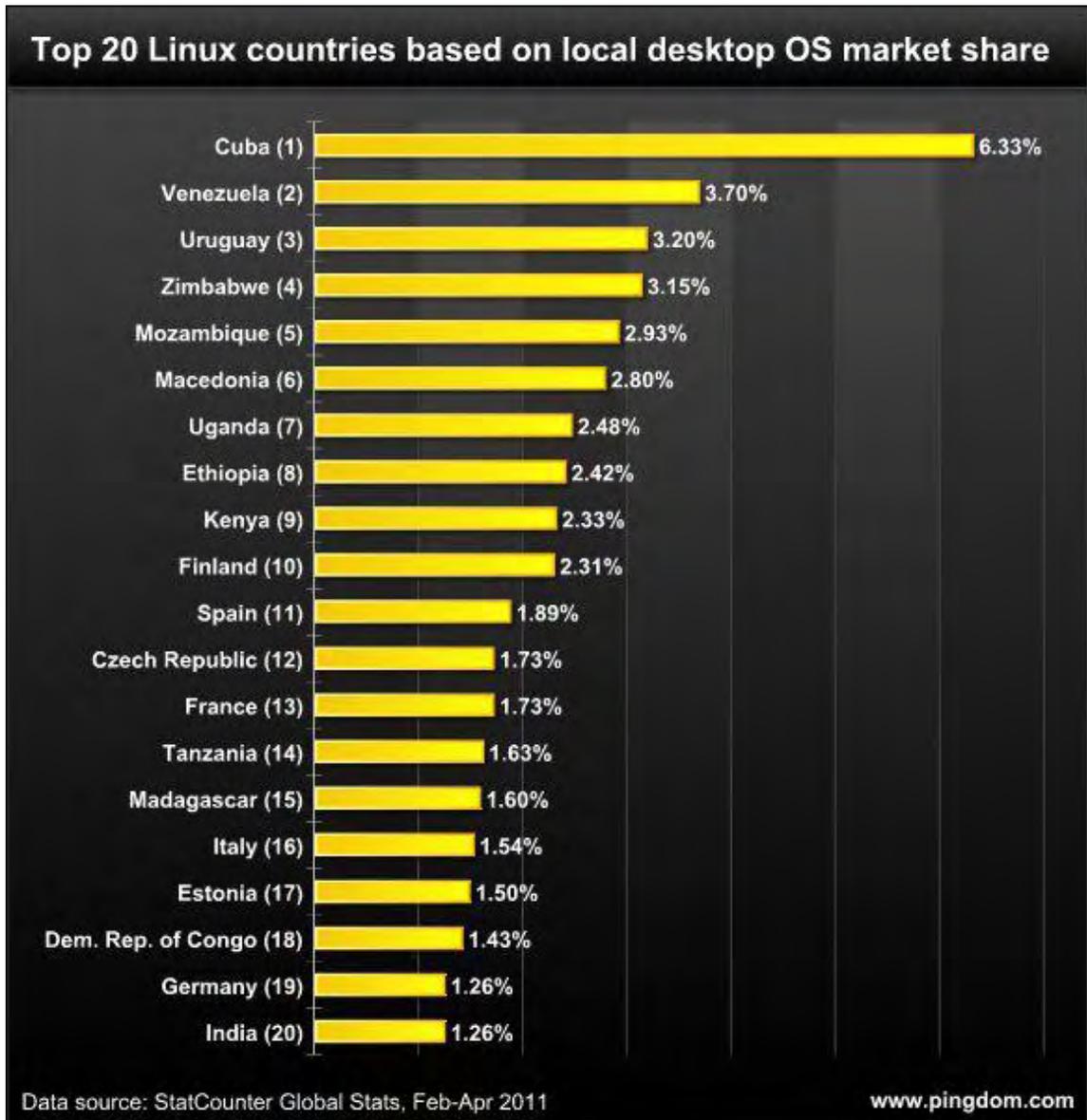


Figure 4. The popularity of Linux around the world.

\* \* \*

If you use Safari, there's a hidden Develop menu just for developers that will let you examine the HTML code of a Web page, enable WebGL, or open the current page in another program. To make the Develop menu visible, click on the Safari menu and choose Preferences.

When a Preferences window appears, click the Advanced icon. Now select the "Show Develop menu in menu bar" check box.



Figure 5. Adding the Develop menu in Safari.

Once you've added the Develop menu, it will appear sandwiched between the Bookmarks and Window menu on the Safari menu bar.



Figure 6. The commands available on the Develop menu.

In the early days, before Wally became an Internationally renowned comedian, computer book writer, and generally cool guy, Wally Wang used to hang around The Byte Buyer dangling participles with Jack Dunning and go to the gym to pump iron with Dan Gookin.

Wally is responsible for the following books:

***My New Mac, Lion Edition*** ([www.amazon.com/gp/product/1593273908/ref=as\\_li\\_tf\\_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=1593273908](http://www.amazon.com/gp/product/1593273908/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=1593273908))

***My New iPad 2*** ([www.amazon.com/gp/product/159327386X/ref=as\\_li\\_tf\\_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=159327386X](http://www.amazon.com/gp/product/159327386X/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=159327386X))

***Steal This Computer Book*** ([www.amazon.com/gp/product/1593271050?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050](http://www.amazon.com/gp/product/1593271050?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050))

***Microsoft Office 2010 For Dummies*** ([www.amazon.com/gp/product/0470489987?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470489987](http://www.amazon.com/gp/product/0470489987?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470489987))

***Beginning Programming for Dummies*** ([www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702](http://www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702))

***Beginning Programming All-in-One Reference for Dummies*** ([www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541](http://www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541))

***Breaking Into Acting for Dummies with Larry Garrison*** ([www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468](http://www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468))

***Strategic Entrepreneurism with Jon and Gerald Fisher*** ([www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894](http://www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894))

***How to Live with a Cat (When You Really Don't Want To)*** ([www.amazon.com/gp/product/B006DJYL70/ref=as\\_li\\_tf\\_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=B006DJYL70](http://www.amazon.com/gp/product/B006DJYL70/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=B006DJYL70))

***The Secrets of the Wall Street Stock Traders*** ([www.amazon.com/gp/product/B006DGCH4M/ref=as\\_li\\_tf\\_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=B006DGCH4M](http://www.amazon.com/gp/product/B006DGCH4M/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=B006DGCH4M))

***Mac Programming For Absolute Beginners*** ([www.amazon.com/gp/product/1430233362?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362](http://www.amazon.com/gp/product/1430233362?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362))

***Republican Fairy Tales (Children's Stories the 1% Tell About the Rest of Us)*** ([www.amazon.com/gp/product/B006QSKM3A/ref=as\\_li\\_tf\\_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B006QSKM3A](http://www.amazon.com/gp/product/B006QSKM3A/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B006QSKM3A))

***The Zen of Effortless Selling with Moe Abdou*** ([www.amazon.com/gp/product/B006PUFPGI/ref=as\\_li\\_tf\\_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B006PUFPGI](http://www.amazon.com/gp/product/B006PUFPGI/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B006PUFPGI))

***The 15-Minute Movie Method*** ([www.amazon.com/gp/product/B004TMD9K8/ref=as\\_li\\_tf\\_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B004TMD9K8](http://www.amazon.com/gp/product/B004TMD9K8/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B004TMD9K8))

***Erotophobia (A novel)*** ([www.amazon.com/gp/product/B009POEAJ0/ref=as\\_li\\_qf\\_sp\\_asin\\_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B009POEAJ0&linkCode=as2&tag=the15minmovme-20](http://www.amazon.com/gp/product/B009POEAJ0/ref=as_li_qf_sp_asin_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=B009POEAJ0&linkCode=as2&tag=the15minmovme-20))

In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method. ([www.15minutemoviemethod.com/](http://www.15minutemoviemethod.com/))" Wally can be reached at [wally@computoredge.com](mailto:wally@computoredge.com).

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## Worldwide & Product news reviews

### Worldwide News & Product Reviews

“The latest in tech news and hot product reviews.” by Charles Carr



When it Comes to Apple...There's Just No "Replacement"; Can You Achieve "Creative Collaboration" Working from Home?; New Audio Players Aim to "Change Listening Forever"; iWALK Link 2500m Micro USB Charging Station; Samsung Galaxy S 4 Active (AT&T).

### When it Comes to Apple...There's Just No "Replacement"

A recent posting over at The Age ([www.theage.com.au](http://www.theage.com.au)) cites numerous sources who all came to the same conclusion: something fishy is going on with the built-in spell checker on Apple devices:



"Abortion", "virginity", "rape", "bullet" and "ammo"—slightly misspell any one of these words on an iPhone, iPad or iPod Touch running the latest iOS operating system and Apple will refuse to suggest the correct word.

That's according to analysis conducted by The Daily Beast, an American news and opinion site which tested—using automated software—two different misspellings for roughly 250,000 words.

It found that many slightly misspelled sensitive words were underlined, but that Apple would not suggest their correct spelling, even if only one letter

was incorrectly used at the end of a word.

"For example, if a user types 'abortionm' with an 'm' instead of an 'n', the software won't suggest a correction, as it would with nearly 150,000 other words," The Daily Beast wrote.

In a blog post explaining the analysis, The Daily Beast said it conducted it after reporters who were creating an interactive on abortion clinics in the US found that their iPhones wouldn't suggest the correct word for misspellings of "abortion" when they were e-mailing about it.

"We noticed that iOS never autocorrected this word when we misspelled it, and when we would double-tap the word to get spelling suggestions, the correctly spelled word was never an option."

It noted that many of the words Apple doesn't suggest the correct word for, or autocorrects, were accurately corrected under an earlier version of the iPhone and iPad operating system.

When it contacted Apple for comment, it said their spokesperson declined to comment.

Jillian York, the director for international freedom of expression at the Electronic Frontier Foundation, told The Daily Beast that Apple was one of the "most censorious companies."

"I hate to say it, but I don't think this should surprise anyone," she said of the findings, citing the company's history of censoring products in its app stores. She also noted Apple's lack of participation in the Global Network Initiative, a nonprofit partnership between tech giants, and a number of human-rights groups and other organizations advocating for free expression online.

More info and links at theage.com ([www.theage.com.au/digital-life/digital-life-news/apple-auto-correct-blindspot-the-words-your-iphone-fails-to-recognise-20130717-2q3bv.html#ixzz2bm5UAatL](http://www.theage.com.au/digital-life/digital-life-news/apple-auto-correct-blindspot-the-words-your-iphone-fails-to-recognise-20130717-2q3bv.html#ixzz2bm5UAatL)).

### Can You Achieve "Creative Collaboration" Working from Home?

Dan Burger, Director of Emerging Technologies for Promedia Technology Services ([www.promedianj.com](http://www.promedianj.com)), writes in this week:

At one point or another, we've all heard the assertion from a friend or coworker, "I can do my job from anywhere! All I need is my laptop and a phone." Mobile technology has provided us the ability to access our data and productivity tools from anywhere. Recently though, some companies have begun to question the philosophy of work as something we do, not somewhere we go.

The most high profile of companies to revisit their work-from-home policy has been Yahoo, who ended their flexible working options. In a highly publicized memo to employees, Melissa Mayer, Yahoo's CEO, said, "To become the absolute best place to work, communication and collaboration will be important, so we need to be working side by side...That is why it is critical that we are all present in our offices."

Statements such as these suggest that successful creativity and innovation require teamwork and collaboration at a level that can't be reached in a decentralized work environment. Does this mean the end of working from home? Every business leader will have to make his or her own decision, but they must keep in mind that the tools needed to develop truly rich collaborative experiences for mobile workers are available today.

Every day in our personal lives—whether it be through text messages, Skype, Facebook, Twitter, or any other social platform—we collaborate quickly and easily to develop relationships and create new experiences. A Twitter update can serve as a broader conversation starter and a video chat can be a catalyst for planning deeper future activities. Is it time for businesses to realize that instances like these spur ideas not just in our personal lives, but in our work lives as well?

Traditionally, business needs have led to innovations in communication and collaboration technology. Now is the time for the business world to take a cue from the personal, and harness the best aspects of social media to make workers more productive.

Social tools for business can provide the benefits of quick, simple communication while allowing for a flexible workspace. Corporate social networks create structured environments that provide all of the features of in-person work in an efficient, mobile package. Department and project-based groups can be created to provide a centralized place to brainstorm and post spur of the moment ideas. Realtime presence updates (On the Phone, In a Meeting, Available, Working on a Design, etc.) can make employees aware of their collaborator's status—allowing them to determine the best method for efficient, in-the-moment collaboration. Integrated instant messaging among two or more group members can take the place of talking around the wall of the cubicle, allowing for a free flowing exchange of ideas in real time. One-click escalation of chats to high-definition video conferencing with the ability to share and edit content comfortably occupies the same space as impromptu meetings in the office.

The technology and concepts are new, so there may be some growing pains in deploying and maximizing the benefits of an integrated corporate social strategy. However, the possibilities for flexibility and effective collaboration make a compelling case to explore social networking for the workplace—to empower your employees to freely exchange ideas and foster truly rich, deep communication from wherever they may be.

About the Author:

Dan Burger has worked with technology in various roles and in several industries for 24+ years. In his current role as Director of Emerging Technologies for Promedia Technology Services, a New Jersey-based Technology Integrator, he focuses on developing and providing solutions that allow organizations to maximize the positive impact of mobile devices and technology-based collaboration tools on their business.

## New Audio Players Aim to "Change Listening Forever"

Astell&Kern's Jason Henriques writes in to tell us about what the company is calling nothing less than a revolution in the way we will experience music in the future:

"Playing master-quality recordings many times more detailed than either CDs or MP3s, the Astell&Kern players are at the forefront of how music will be heard and appreciated from now on," said Sammy Figueroa, a two-time Grammy nominee, original Saturday Night Live band member, and percussionist for Miles Davis, among many others. "We're on the brink of a beautiful new sound for every type of music. These devices open up a dimension to the music that's there when you make it, but always gets lost on its way to the headphones. All the beautiful warmth and invitingness of the analog sound that I grew up with, that we all grew up with, can finally be heard for the first time. It's blown everyone's mind that I've played it for. I know it blew mine."

Unlike conventional music players and smartphones, the players work with high-resolution, studio-master-quality audio files that contain more than six times the data of a conventional CD recording, and dozens of times the amount of data found in a typical MP3 file. The difference in detail, presence and realism is astonishing even to the untrained ear.



AK100

AK120

"It's a completely different experience in the listening, even though you get your music in the same way, through your computer," says Figueroa. "People have become used to paying a buck for a low-quality experience, and now for another buck, they can get an experience that is as night and day as HDTV was to plain TV. It usually takes a while to capture the public's attention with something new in audio, but once people hear this, it's immediately addictive."

The Astell&Kern music players remain true to the music from artists like these and any others. The secret is in the ability to play newly-available high resolution audio formats that are re-defining the music industry. In layman's terms, these audio files take digital "snapshots" (samples) of the original recorded signals 192,000 per second, rather than the comparatively puny 44,100 times per second used by the Compact Disc (CD) format that was introduced over thirty years ago.

Even lower-than-CD-quality music became the norm with the popularity of MP3 files more than 15 years ago. Today's typical music file has only about 14% of the data present even in a CD-quality music file. Which means it has only a tiny fraction of the musical data that's available on the new high-resolution music files playable by the new players.

Astell&Kern is compatible with FLAC, WAV, WMA, MP3, OGG, APE, AAC, ALAC and AIFF audio files, so users can play both new high resolution audio and their current collection of digital music including the most popular Apple formats, all with one player. The Astell&Kern players are the world's first portable audio device equipped with the Wolfson WM8740 Digital-to-Analog Converters (DACs).

Available in two models, the AK120 contains two Wolfson DACs, one for each (left/right) channel, while the AK100 contains a single DAC. The two players provide up to 16 hours of playback on a single charge. The Astell&Kern offers numerous connection options, including micro-USB, optical in/out and headphone out. The AK100 contains 32GB of internal memory, while the AK120 contains 64GB internal memory. Both can be expanded via two (2) microSD card slots, each slot supporting an additional 64GB microSD card.

Charles Carr: They're certainly not inexpensive. The AK 100 lists on Amazon for \$699; the AK 120 \$1299. We're looking forward to trying out one or both of these players. We'll keep you posted.

### iWALK Link 2500m Micro USB Charging Station

Product Name: Link 2500m

Manufacturer: iWALK

Web Site: [www.iwalkusa.com](http://www.iwalkusa.com) ([www.iwalkusa.com/iwalkusa/PrdtDtl.aspx?pid=85&id=SubCategory\\_1&Colorid=1&ProductColorID=497](http://www.iwalkusa.com/iwalkusa/PrdtDtl.aspx?pid=85&id=SubCategory_1&Colorid=1&ProductColorID=497))

Price: \$54.99

Tired of hauling your cell phone and Bluetooth AC adapters with you when traveling? Well, the iWALK Link 2500m could be the answer

for you.

It is a device with a 2500mAh rechargeable Li-ion battery. It will recharge both your cell phone and Bluetooth earpiece as long as they have a Micro USB charging port. If you have it handy when the battery charge in your phone gets low, you can plug it in and be back in business. It is compatible with most Samsung, Blackberry, HTC, Nokia and LG phones. It's not much bigger than a couple of AA batteries (2 3/4" x 1 5/8" x 7/8") and is charged through another USB port via the supplied USB cable.



There is a three light LED battery meter that shows battery status during use. Three lights indicate 90% charge or better. Two lights indicate a 30% to 90% charge. One light indicates a less than 30% charge. It can charge and discharge simultaneously.

The package includes the unit, a USB charging cable, and a user's manual. It seems a bit pricey for what it does. At the iWALK Web site it's \$54.99, but I have found it on Amazon for as low as \$41.35. They also make a Link 2500i model for the iPhone, iPod, and most 30 pin connections.

It's priced a bit higher (\$59.99) at the iWALK site but I have found it on Amazon for as low as \$30. I plan to have mine with me when I travel in the future. It seems a bit pricey for what it does so I'm taking off one globe.



Review contributed by Joe Nuvolini

## Samsung Galaxy S 4 Active (AT&T)

Product Name: Galaxy S 4 Active

Carrier: AT&T Wireless

Manufacturer: Samsung

Web Site: [www.att.com \(www.att.com/shop/wireless/devices/samsung/galaxy-s-4-active-urban-gray.html#bid=56INbLnXR9\)](http://www.att.com/shop/wireless/devices/samsung/galaxy-s-4-active-urban-gray.html#bid=56INbLnXR9)

Price: \$199 with two year contract

We've looked at the Samsung Galaxy S 4 smartphone in the past, but we haven't talked much about the model called S 4 Active. Let's dig a little deeper.

Samsung calls the phone "Active" not because of some sort of proprietary active circuitry or—and this is what I thought it meant—because it has a secret compartment where you can stash a dose of active yogurt culture (part of every healthy lifestyle!), but to appeal to those who tend to get a bit wetter and dirtier than most.



In a nutshell, the S 4 Active has much better protection from the elements than the S 4 thanks to an IP67 rating and the addition of physical (rather than capacitive) buttons and port covers

The IP67 rating means it can actually survive in water up to a meter deep for up to half an hour. The Active also has better protection from dust and general crud. Imagine how well it would work around the house up to and including the occasional dunk in the toilet. Love the beach? This is your phone. Got a firefighter in the family? Buy her or him one.



Keep in mind that, while the improved IP rating means you take it in the shower, it does not mean it will do any better than the regular S 4 if you drop it in the shower.

The S 4 Active has three actual (rather than touchscreen) buttons on the front of the device, as opposed to the S 4's single home key. The microUSB port also has a cover to protect from water and dirt.



In an extremely-cool move, Samsung figured out how to allow the headphone jack to remain uncovered yet seal off the rest of the circuitry. The back cover also has a seal that protects the battery, SIM card, and microSD card from water. The two phones are essentially the same size and weight.



Strangely, the S 4 Active only has an 8 megapixel camera comparison to the standard S 4's 13 MP. Still, pics shot with the Active still look fantastic. The active also has something called Aqua Mode which lets you use the volume key to snap pics and video rather than an onscreen button, which would not work underwater.

Just like the S 4, the S 4 Active is an excellent addition to the Samsung Galaxy family.



*General specs (from AT&T):*

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*Rear-facing camera  
8MP with autofocus and LED flash*

*Zoom  
4x digital*

*Live video capture and playback  
1080p with slow motion video capture*

*Front-facing camera  
2MP*

*Aqua Mode  
Take underwater photos with Aqua Mode and post them to Facebook® as soon as you get out of the water.*

*Drama Shot  
Take series of action shots and put them together in one photo.*

*Sound & Shot  
Capture audio with images to help you relive the moment.*

*Beauty Face  
Brighten or darken skin tones or hide portrait imperfections.*

*Panorama  
Create a single widescreen photo from consecutive shots.*

*Best Photo  
Shoot multiple photos of your subject and choose the best shots.*

*Rich Tone (HDR)  
Switch to Sports Mode, Night Mode, and more for dramatic shots.*

*Eraser  
Erase unwanted people or objects in pictures with just one touch.*

*Supported music formats  
MP3, OGG, AAC, AAC+, eAAC+, WMA, AMR-NB/WB, FLAC, WAV, MID, AC3, IMY, Vorbis, RA*

*Text messaging  
Insert pictures, video clips and sound clips easily (messaging charges may apply)*

*Web browser  
Android, Google Chrome*

*Air View — View photos, open files, accept calls – without touching the phone.*

*S Translator  
Instantly convert voice or text to other supported languages of your choice.*

*S Health  
Track workouts, daily calorie intake, and weight levels, and chart your progress.*

*3G – high-speed data and voice*

*World phone  
Quad-band*

*Bluetooth wireless connectivity  
4.0*

*USB connectivity - transfer data through a USB cable  
USB cable included*

*Hands-free speakerphone*

*Voice dialing and voice commands*

*Hearing Aid (HAC) rating*  
M3

*TTY/TTD compatible*

*Enhanced Audio*  
*earSmart Advanced Voice processor improves call clarity & sound quality*

*Technical Specifications (from AT&T):*

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*Battery capacity*  
2600mAh

*Talk time (hours)*  
Up to 17

*Standby time (days)*  
Up to 13

*Size (inches)*  
5.50x2.81x0.36

*Weight (ounces)*  
5.29

*Processor*  
Qualcomm MDM9215 + APQ8064pro  
1.9GHz Quad-core

*Internal memory storage*  
Up to 16GB

*Expandable memory storage*  
Up to 64GB

*Memory format*  
microSD

*RAM*  
2GB

*Wireless Technology*  
4G-LTE  
Bands 2, 4, 5 and 17

*4G HSPA+*  
*HSPA+ with enhanced backhaul*

*3G - UMTS*  
850/1900/2100MHz

*GSM/GPRS/EDGE*  
850/900/1800/1900MHz

*Wi-Fi connectivity*  
802.11 a/b/g/n/ac

*5GHz Wi-Fi*

*Near Field Communication (NFC)*  
Open, secure

*Mobile Hotspots  
Up to 10 devices*

*FOTA capable - upgrade Firmware Over The Air  
Operating System*

*Android v4.2 (Jelly Bean)*

*Display size (inches)  
5.0*

*Resolution (pixels)  
1920x1080 Full HD TFT (441 ppi)*

*Colors  
16 million*

*Predictive text for fast typing*

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In addition to being an editor and columnist for *ComputerEdge* and *ComputerScene* Magazines, where he has written hundreds of feature articles and cover stories over the past decade, Charles Carr has also penned well over 1,000 non-tech newspaper and magazine articles and columns for various publications, including two widely-read columns each week for San Diego's *North County Times* newspaper.

Carr has covered such diverse topics as pesticide use in area schools, invasive background checks for county volunteers, asthma awareness, the debate over standards-based grading, potential vulnerabilities in electronic voting machines, and Southern California's devastating 2003 and 2007 wildfires. He has also written many humorous pieces.

Carr has also edited dozens of stories and articles written by others which have appeared in major publications and web sites across the country.

He has been a contributor and technical advisor to *L.A. and San Diego Parent* magazines and receives dozens of requests a year to appear on Southern California television and radio stations to talk about important events in the tech world.

Carr has judged many writing competitions including San Diego Press Club and Time-Warner Communications contests and was sole judge for the national NAPPA Tech Toys awards for five years (which his kids really appreciated). He was recently a judge for the national "Poetry Out Loud" competition.

He has won many writing accolades, including Press Club awards for Best Column Writing, Consumer Writing and Best Arts and Entertainment, and has repeatedly taken top honors in San Diego Songwriter's Guild competitions for his original musical compositions.

Carr will soon publish his first book, *What a World*, a collection of his best writings.

Learn more at [www.charlescarr.com](http://www.charlescarr.com).

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## Editor's Letters: Tips and Thoughts from Readers

“Computer and Internet tips, plus comments on the articles and columns.” by ComputerEdge Staff

"Window 8.1 Preview," "Forwarding a Received Picture," "Nook"

### Window 8.1 Preview

[Regarding Jack Dunning's July 26 article ([webserver.computoredge.com/online.mvc?issue=3130&article=cover](http://webserver.computoredge.com/online.mvc?issue=3130&article=cover)), "Windows 8.1 Preview":]

You're right, it isn't all that bad, in fact I loaded 8.1 onto a touchscreen tablet with a 550 Atom processor (SkyTech SkyTab) and a 9.5" screen. So far I like it, but I still loaded up Start Menu 8 in order to get a more "7" like start button.

I don't really have anything to add to the other reviews of how the preview compares to the old 8. Though I did try a trick I found on the net that allows you to take a stand alone PC or laptop and make it boot up without having to enter a password or any kind of code at login, which as a single user in my own home and without any sensitive material on the tablet makes for a more XP type experience when rebooting after updates or installs of DLL intensive programs.

I don't know if it is a bug in 8.1 preview or my tablet, but even though I checked "wake from sleep without password" it still required me to use password after wake from sleep or hibernation. I'm not a typical tablet user either as I have made this one into a music and media server that I mostly operate with a full size keyboard and a Logitech wireless trackball from my La-Z-Boy in the living room.

I think I'm like most power users in that if I want to do portable touchscreen intensive activities I will use my 10" Android tablet. If I come across any startling new and fantastic plus points or out points with the 8.1 preview or once I upgrade to the final build I will write a review for *ComputerEdge*—at least a month or two after the release.

-Buck F.

Instead of making all those stupid changes to things that aren't broke, why don't they just save the money, keep what they have and provide a human (English speaking) with actual knowledge of their system to give us "real" product support; instead of wasting our time (theirs and ours) and causing nothing but extreme frustration with their current useless support.

It seems that real product support is a thing of the past—ever since companies got so big they don't worry about losing customers. They know their competition is doing the same thing, so we just go in circles moving from one to the other looking for better service.

The ultimate insult is when you have unresolved problems with Verizon a synthesized voice comes on and says: "I'm sorry you're having problems—good bye."

-Wayne, Huntington Beach, CA

### Forwarding a Received Picture

[Regarding the August 2 Digital Dave column ([webserver.computoredge.com/online.mvc?issue=3131&article=dave](http://webserver.computoredge.com/online.mvc?issue=3131&article=dave)):]

Dear Digital Dave.

I overcome Gene's problem being a recipient getting an empty box with a little red x, instead of photo, by simply forwarding the original e-mail to myself and when again received, I modify any unwanted original text and forward on to the intended recipient.

Since I can see that the forward e-mail sent to myself includes the interesting pictures I'm ensured that they will be sent on to the recipient.

-Don, Poway, CA

"...forwarding the original e-mail to myself and when again received, I modify any unwanted original text and forward on to the intended recipient..."

I'm afraid I don't understand. If you were the intended recipient and got an e-mail with missing pictures, they are just missing and there is nothing you can do except check security options to make sure your e-mail program is not preventing their display.

-Ron Cerrato, San Diego, CA

Red "X" in Box: I use AOL and called them about this problem. The tech told me it had something to do with the "oldness" of my computer and software. (I use XP SP3.) He said the new programs are somehow not compatible with my computer, *but*, he said he'd try to fix it. He told me what to do and voila, most times I get the pictures! Sorry I cannot remember what he told me to do...

-Jean Ritter, Colorado Springs, CO

## Nook

[Regarding the July 19 Wally Wang's Apple Farm column ([webserver.computoredge.com/online.mvc?issue=3129&article=wallysaf](http://webserver.computoredge.com/online.mvc?issue=3129&article=wallysaf)):]

"The Nook was late to the party." Actually the Nook Color came out the year before the Kindle Fire, and was more flexible (expansion memory card slot, more memory, rootable, at least at the beginning, compatible with public library catalogs); its limitation was the app selection, only through B&N, no outside apps, and let's face it, B&N is no Amazon juggernaut. It's a pity...

-JDMB, San Diego, CA

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*ComputerEdge* always wants to hear from you, our readers. If you have specific comments about one of our articles, please click the "Tell us what you think about this article!" link at the top or bottom of the specific article/column at ComputerEdge.com ([webserver.computoredge.com/online.mvc?src=ebook](http://webserver.computoredge.com/online.mvc?src=ebook)). Your comments will be attached to the column and may appear at a later time in the "Editor's Letters" section. If you want to submit a short "ComputerQuick Review", or yell at us, please e-mail us at [ceeditor@computoredge.com](mailto:ceeditor@computoredge.com). If you would like to review our recent e-books, please visit ComputerEdge E-Books ([www.computoredgebooks.com/](http://www.computoredgebooks.com/)).

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