ComputorEdge™ Online — 08/05/11

This issue:
More Little Known Computer Stories

Obscure, yet possibly important, developments in computers and the Internet.

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Editor's Letters: Tips and Thoughts from Readers by ComputorEdge Staff

Computer and Internet tips, plus comments on the articles and columns.

"EPUB Education," "Hardwired (Connection to) Router," "Updates, from Microsoft or Others," "iWOW 3D for Zune"

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Digital Dave

"Digital Dave answers your tech questions." by *Digital Dave*

Copying from iPod to iTunes; DSL Wi-Fi Hell; Setting Default Directory for Flickr in Internet Explorer.

Dear Digital Dave,

I am using Windows XP and have two laptops. The one that has iTunes on it just quit. It was diagnosed as the motherboard. It is the one that I was using to sync my music to my iPods. How can I download the music from the iPod to my other laptop without having to drag every single album from "My Music" to iTunes on the other laptop? In other words, is there a way to download straight from the iPod to the other laptop?

Thank you for your help.

Jim White
Spokane, WA

Dear Jim,

There are programs available for exactly that problem. They only needed to exist because Apple decided that it was better to make downloading from the iPod obscure—not impossible. They think that they are protecting someone (who?), when in reality they are merely making life more difficult for customers like you who have a real need to download from their iPod.

Apple is afraid that you will give away the music on your iPod to your friends and they will miss out on a commission. In fact, anyone who wants to share their music can do it easily. Ask any pirate. I suppose that Apple is hoping to get even more control over your music with the introduction of iCloud.

First, there are a few programs which will do the job. Both CopyTrans (*download.cnet.com/CopyTrans/3000-18545_4-10426173.html*) and Easy iPod Transfer (*download.cnet.com/MediaWidget-Easy-iPod-Transfer/3000-2141_4-10646910.html*) are highly rated at CNET. They are paid programs with a free trial. For totally free software check out iCanExport (*download.cnet.com/iCanExport/3000-2169_4-10550794.html?tag=api*) or iSyncTunes (*download.cnet.com/iSyncTunes/3000-2141_4-10452590.html?tag=api*). Since you are using Windows XP, any of these should do the job. Be sure to read the user reviews before downloading.

If you want to do it yourself while learning about the lame way that Apple has attempted to hide the iPod files, then I stumbled upon this excellent video tutorial for copying files from your iPod (*youtu.be/5Stv7bLn17Q*). It's worth anyone's time to watch this video since these techniques are often useful when working with any external device, whether iPod, Smartphone, digital camera, eReader, iPad, or another tablet computer.

Digital Dave

Dear Digital Dave,

My roommates use a DSL line for Internet through AT&T. I have a Netgear wireless USB adapter on my PC. We have a Netgear wireless router. The problem is that every time there is a phone call, I get booted offline from my computer. My computer is the one in my room, not the one that has the DSL modem and router hooked up to it. Is there a way to resolve this on going and very frustrating issue? Also, my cell also gets disconnected when there is a call.

Anthony
San Diego, CA

Dear Anthony,

There are a couple of possibilities which could be the source of your problem. The first is that the DSL line filter is either missing or malfunctioning.

Since DSL comes into the house on the same line as the phone line, there needs to be a filter which will isolate the Internet signal from the phone signal. It will look similar to the filter pictured on the left, although it may have a single output. Without the filter, dropped Internet signals are common when a phone call comes in. This would also affect the computer directly connected to one of the router's Ethernet ports, but it may recover quicker than the Wi-Fi signal from the router.

If you know that this is not the problem, then you should try changing the router broadcast channel for Wi-Fi by running the setup program from a computer directly connected. It is possible that you are getting interference from cordless phones, microwave ovens, or baby monitors which operate in the same band as the older Wi-Fi. If you have cordless phones, then I would bet on this. This interference could also be a source of the cell phone problem. Diagnosing Electromagnetic Interference (EMI) is like working with magic. A screen door opening and closing could cause a dropped signal.

If none of the above works, you might try changing to a newer, faster 802.11 "N" router which will operate at both the older frequency (b,g) plus the higher "N" frequency. Be warned that your Wi-Fi setup on your computer will also need to be "N" in order to take advantage of the change.

Digital Dave

Dear Digital Dave,

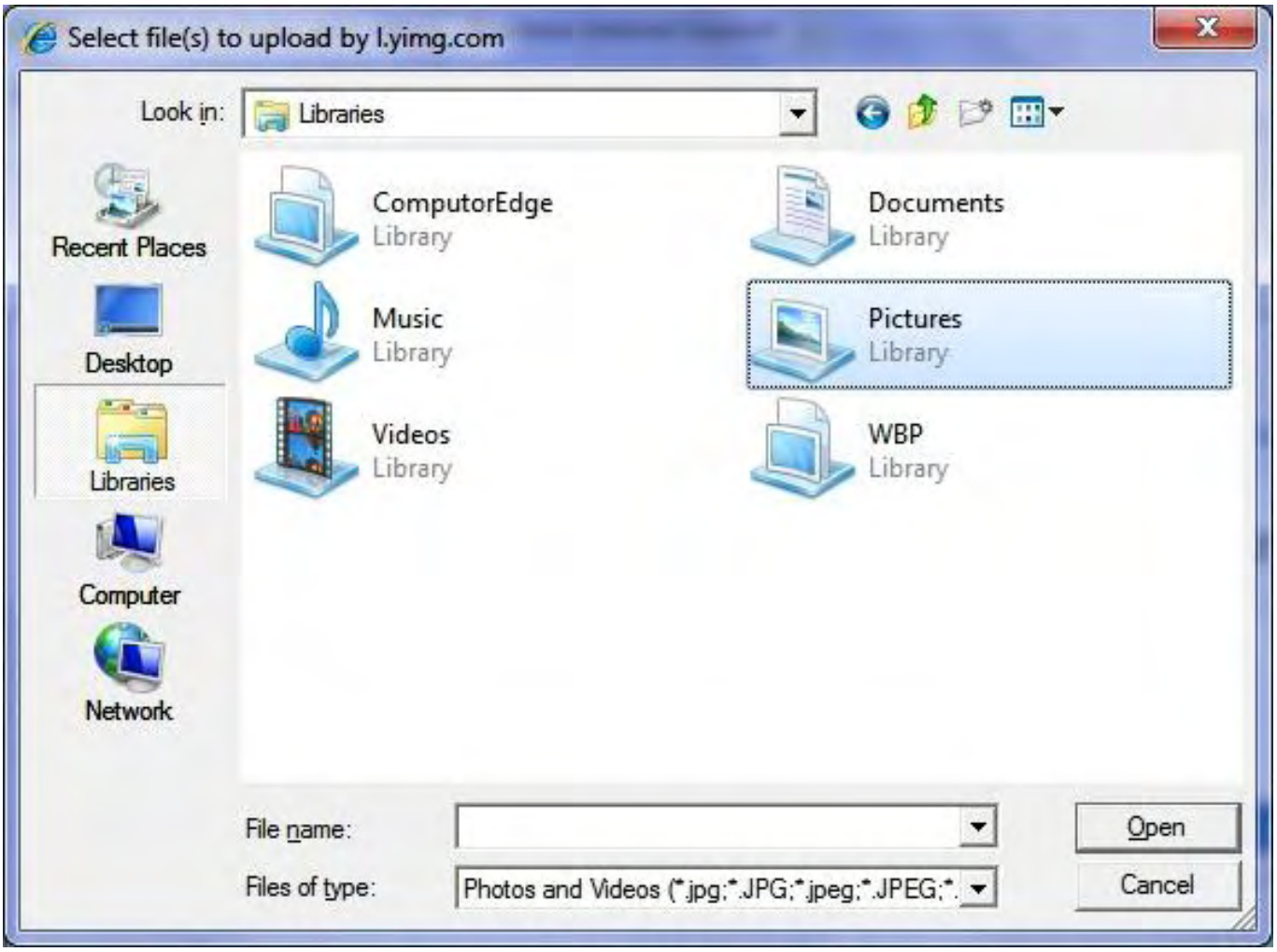
I have a new PC with Windows 7. When I upload photos in Internet Explorer 8, it starts in Documents on the C: drive. I have to drill down to D:/My Documents/My Pictures/Kodak/ folder every time I upload a photo. I didn't have this problem in XP. FireFox doesn't have this problem. It goes to the folder that it last visited.

Walter
San Diego

Dear Walter,

The upload and save windows are program specific. That means it is likely that each application (in this case Web browsers) could handle uploads in a different manner with a varied window. The operation of the upload window also depends upon the Web site to which you're uploading since it may call different ActiveX controls for the process. I checked out a couple of photo sites and they all used variations on upload windows in Internet Explorer. If you're using the same site on a regular basis, there are usually ways to make it easier.

At the Flickr site the upload window in Internet Explorer appears as in Figure 1. You're right. The last location is not saved. However, you do have a few options to make it easier and quicker to find your files.



In Windows 7 (or Vista) I will regularly drag commonly used folders into the Favorites section for quick access, but this window does not include Favorites as an option. With Favorites missing, I tried clicking Recent Places, but the last upload folder was not saved there either.

If you drag the target folder from Windows Explorer onto the Desktop, it will create a shortcut which you can then use to access your photos by clicking the Desktop button.

Another option is to include the folder in your Pictures library. (Right-click on the Pictures library under Libraries in Windows Explorer—Logo key plus E. Select Properties and click "Include a folder...") Once the folder is included, when you double-click Pictures in the Libraries section of the upload window, the photos will be available.

Are you going to be uploading a ton of photos to Flickr? Probably the easiest way to solve the problem is to download the Flickr uploader (*www.flickr.com/tools/*). It will do everything that you want before you even log into the Web site and save your last location.

Digital Dave

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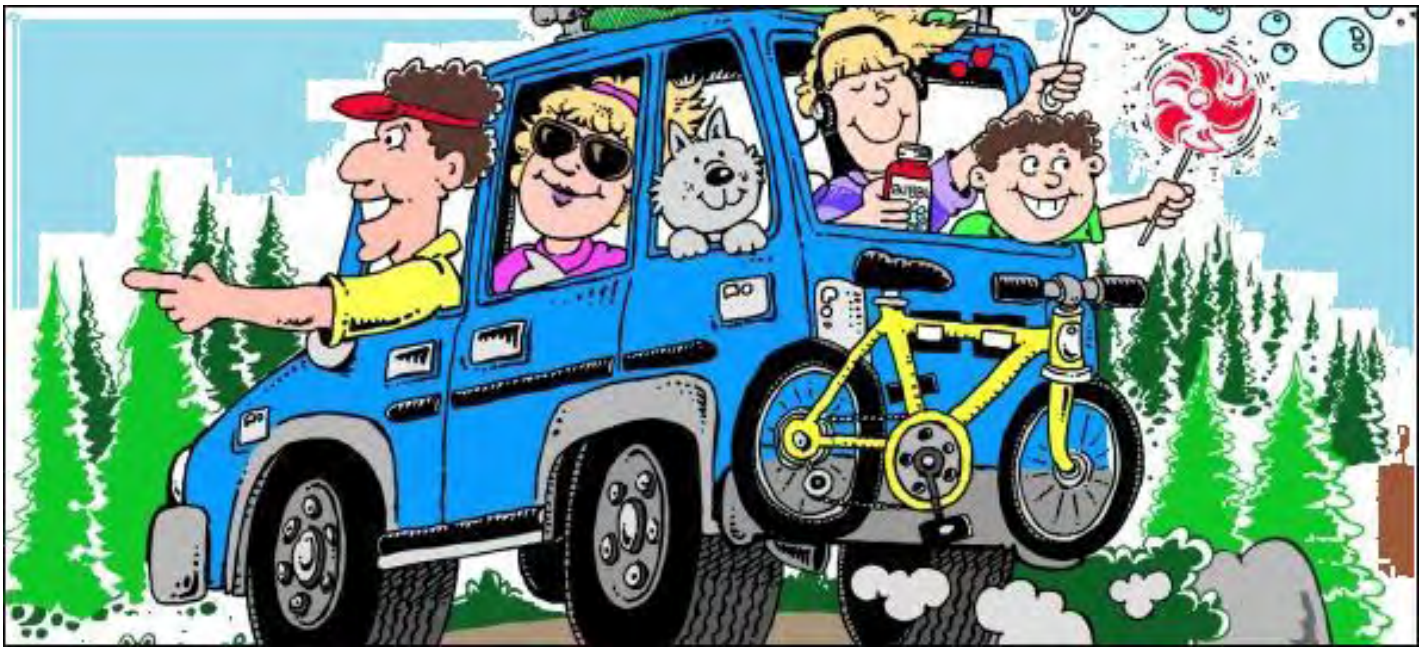


More Little-Known Computing Stories and Trends

"From Diode Jewelry to Pacemaker Hacking" by Marilyn K. Martin

Marilyn shares a compilation of interesting and overlooked computer stories and trends.

My first article on some of the more current but obscure computer-related stories generated some favorable comments, and even a request for more of the same. So here is another recent compilation of interesting and overlooked computer stories and trends. Enjoy!

iShopping

According to a July 2011 article in *Gizmodo*, a South Korean subway station has a "virtual supermarket (*gizmodo.com/5818709/buy-groceries-at-a-virtual-supermarket-inside-a-subway-station*)." Travelers can scan codes of food items displayed on a wall screen, pay for them with QR (Quick Response) codes (*en.wikipedia.org/wiki/QR_code*), and have the items delivered to them by the end of the day.

European grocery chain Tesco (*www.tesco.com/*) is behind the subway virtual supermarket in South Korea. For shoppers in the United Kingdom, they also offer a Grocery App for Android, where you can buy groceries from anywhere in the UK with Speak or Scan.

Online grocery shopping is still developing in the U.S., but Smartlife posted a 2008 article, on "100 Places To Buy Your Groceries Online (*smartlifeblog.com/100-places-to-buy-your-groceries-online/*)". Their List of online grocery stores is divided into U.S. general, U.S. regional, international, multicultural, organic and specialty.

Online shopping for non-grocery items has been around for awhile, and each year a bigger percentage of American shoppers buy online, especially as the holidays approach. Shop.org (*www.shop.org/press/20101128*) announced in November 2010, that 106 million Americans intended to shop online on Cyber Monday, or the Monday after Thanksgiving (2010). This was up significantly from the 96.5 million who shopped online en masse on Cyber Monday 2009.

Battling for the Airwaves

The Washington Post reported in June 2011, that a "clash of frequencies" is going to put the Global Positioning System (GPS) and wireless smartphones on a collision course (*www.washingtonpost.com/local/lightsquared-wireless-Internet-plan-concerns-officials-pushing-gps-for-aviation/2011/06/03/AGDX0qIH_story.html?hpid=z3*). LightSquared (*www.lightsquared.com/*) has been issued a government waiver to develop a $14 billion broadband communications system adjacent to the bandwidth used for GPS transmissions. This network will dramatically increase mobile communications. However, it will also result in "a complete loss of GPS receiver function," according to the Radio Technical Commission for Aeronautics (*www.rtca.org*).

The Federal Aviation Administration (FAA) has also delivered a Report stating that deployment of this massive new network of towers and satellites to expand wireless communication would seriously affect aviation. Especially since aviation is in the midst of a Next Gen, multi-billion dollar transformation that relies entirely on the viability of GPS. These new towers/satellites could also affect GPS used by drivers, boaters and bicyclists.

A July 2011 article in *Tech News Daily* announced "New Software Gives Wi-Fi a 'Nap,' and Boosts Battery Life. (*www.technewsdaily.com/new-software-gives-wi-fi-a-nap-and-boosts-battery-life-2921/*)" Using Wi-Fi rapidly drains a smartphone or laptop of battery power, especially if a user is just waiting in line to get onto a Wi-Fi network in a crowded city.

However, a student at Duke University has discovered a simple way to double the battery life of mobile devices. A new Wi-Fi changing system called "SleepWell" forces devices to catnap many times per second between sending bursts of data. Microsecond energy gains can be huge energy savers, and extend the life of device batteries.

Medical Computing—and Hacking

A February 2011 Press Release from *EurekAlert* announced that the W. M. Keck Foundation (*www.wmkeck.org/*) is funding University of Washington (UW) research on tiny, implantable computers (*www.eurekalert.org/pub_releases/2011-02/uow-kff020711.php*) to restore brain functions lost to disease or injury. UW has a three year, $1 million grant from Keck to continue their work in "neural engineering," by creating miniature implantable devices to record from and stimulate the brain, spinal cord and muscles.

It could also be used to bridge lost biological connections, by creating new connections for lost pathways between the brain and spinal cord. The device will also be able to act like a "volition processor, tapping into signals representing the will to move and using them to stimulate the paralyzed muscles to reach targets."

A June 2011 Press Release from *EurekAlert*, announced that researchers at the Massachusetts Institute of Technology (MIT) and the University of

"The brain implant was a success, but I think I need a longer power cord."

Massachusetts-Amherst have found a way to shield millions of implantable medical devices from "outside compromise (*www.eurekalert.org/pub_releases/2011-06/miot-pmi061411.php*)"—or hacking. "In the worst-case scenario, an attacker could kill a victim by instructing an implantable device to deliver lethal doses of medication or electricity," according to the Press Release.

The new prevention system would use a second transmitter to jam unauthorized signals on an implant's operating frequency. And that jamming transmitter (called a shield), rather than the implant, would handle all the needed encryption and authentication. And it could be something as simple as a necklace or watch.

Kids As High Tech Predictors?

According to a July 2011 article in *Tech News Daily* kids may have a knack for predicting future (*www.technewsdaily.com/kids-future-technology-study-2917/*) media and technology, according to a new study by the international research consultancy firm, Latitude (*www.latd.com/*). The study asked children around the world, "What would you like your computer or the Internet to do that it can't do right now?"

The kids surprised the researchers by the extraordinary and sophisticated ways they understood modern technology. Their answers related not only to how technology could enhance their own lives, but also how it could help solve global problems. The kids basically wanted technology that would be more interactive and human-like, better integrated with their physical lives, and more empowering with better "assisting" knowledge or abilities.

2011—Worst Year Ever for Security Breaches and Malware

A June 2011 article in *Tech News Daily* declares that 2011 is set to be the worst year ever (*www.technewsdaily.com/2011-worst-year-ever-security-breaches-2803/*) for computer security breaches. Just in the first six months of this year, six of the most massive and supposedly secure organizations in the world (from NASA to Lockheed Martin to the FBI—and both the British and French Treasuries) have been hacked. The hackers have stolen massive amounts of sensitive data, and put millions of citizens at risk due to stolen personal data.

Security firms blame too-lax security attitudes at big corporations, coupled with savvy cyber criminals now moving from street level cybercrime to stealing corporate secrets (discussed in my 7/8/2011 article, "Hackers Gone Wild!"). On the individual level, security firms recommend guarding your personal data better. So that when third-party data-miners spread your application/registration/warranty information on your purchases around, hackers won't have enough information to target you—and your bank account.

Another June 2011 article in *Tech News Daily* discusses how social network "sharing" might be damaging your privacy by revealing too much personal information (*www.technewsdaily.com/like-or-share-links-you-may-be-revealing-personal-info-2787/*). Hitting "like" or "share" links empowers us to feel more involved by interacting with Internet content, but at the same time, others can analyze your "likes" and "shares" to build a cyber-profile of you. This could result in everything from "personalized" ads of things you like popping up on sites you visit to cyber-trackers who can follow you, especially if you don't log out of social media sites before moving on to another site.

Super-Malware: TDL-4

According to a June 2011 article in *Tech News Daily*, a new super-malware strain (*www.technewsdaily.com/indestructible-malware-strain-infects-millions-pcs-2905/*) has infected 4.5 million PCs in 2011, and is still going strong. It is a rootkit called TDSS, TDL or Alureon, and has been evolving and growing more powerful since 2006. It is nearly impossible to detect, and Kaspersky Lab (*usa.kaspersky.com*) calls the latest version, TDL-4, "the most sophisticated (computer) threat today."

Downloaded through porn, bootleg Web sites and file-storage services, TDL-4 bypasses authentication protocols. It then opens a "back door" to cyber criminals, who can download keyloggers (keystroke identifiers), adware and other malicious programs. Once this super-malware invades a PC, the cyber criminals can even manipulate search engines to act as "a launch pad for other malware." It also launches its own security scans, to destroy competing viruses, trojans and worms in order to dominate that PC.

New Face Of Crime Fighting—Facebook

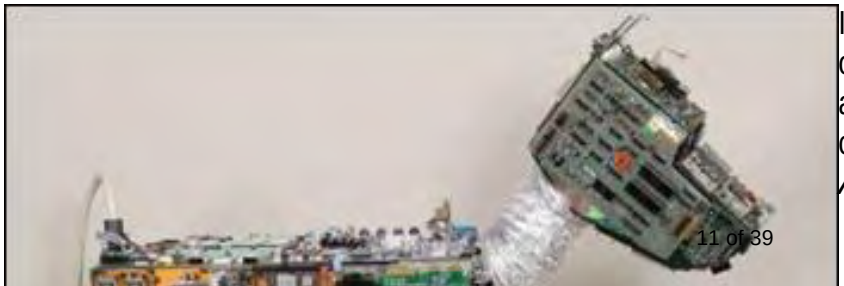
A May 2011 story on NBC discusses how more cops are using Facebook to fight crime (*www.nbcactionnews.com/dpp/news/science_tech/more-cops-using-facebook-to-fight-crime*). Mainly by comparing surveillance videos of crimes, with photos posted on Facebook. Users can adjust their privacy settings to ensure that only friends and family view their profiles. But Facebook wisely concedes that if they are approached by law enforcement with a warrant from a judge, they will let the police or FBI access certain private information.

A July 2011 article in the *Chicago Sun Times* detailed how Facebook and You Tube helped catch an alleged criminal (*www.suntimes.com/6406320-417/facebook-youtube-help-police-make-arrest-in-boystown-stabbing.html*). A savage beating on a city street was videotaped by a concerned citizen from a nearby balcony. Then it was uploaded to YouTube, where detectives studied it. With the help of an anonymous tip from the African-American community, the detectives were able to identify the assailant's photo on his Facebook account.

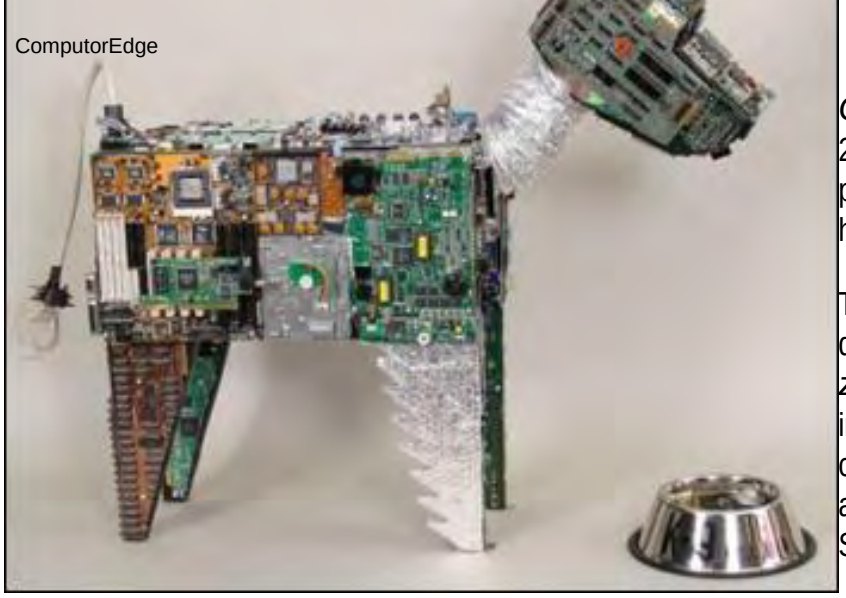
Some law enforcement takes their Facebook connection one step further. A November 2010 article, profiled the Cuyahoga County Sheriffs Department (*www.fox8.com/news/wjw-sheriffs-using-facebook-txt,0,2673463.story*) in Ohio. They had set up their own Facebook page with continually updated photos of their Most Wanted. They reported that they had made 394 arrests in the eleven months since they had created their page, strictly from Facebook tipsters. The Sheriffs reported that Facebook "friends" of the criminals from all over the country had responded with tips that had led to the arrests.

A March 2010 article in *Britain's Guardian* explained how the FBI and other U.S. federal law enforcement, have been using multiple social networking sites (including Facebook) to track down suspects (*www.guardian.co.uk/world/2010/mar/16/fbi-facebook-crime-study*). They also study these sites to track down evidence, search for motives, and locate witnesses. Federal law enforcement has long been active in chatrooms looking for sexual predators. But social network sites can provide photographs, status updates and friends lists. And in most cases, the information is publicly accessible.

Computer Art and Jewelry



It may not make much of a dent in our mountains of outdated and thrown away computers, but some artists have started making artwork from discarded computer parts (*www.womansday.com/Articles/Life/8-Computer-Parts-to-Art-*



Creations.html). *WomansDay* ran a July 2009 article, with photos of some incredible art pieces made of everything from motherboards to hard drives and keyboard keys.

There are also jewelry manufacturers using discarded computer parts, such as Zelle (*www.zellestyle.com/*). They make some unique and interesting jewelry from resistors, diodes, capacitors, fuses and floppy discs. They even offer a necklace and earring set labeled "Baroque Steampunk."

According to a June 2011 article (*www.technewsdaily.com/nervous-system-jewelry-2842/*) in *Tech News Daily*, an MIT couple formed a company called Nervous System (*n-e-r-v-o-u-s.com/shop/*), to produce jewelry and housewares with "scientific content." Each piece begins as a computer program designed to replicate a natural phenomenon, "such as the branching of coral, or fractal growth pattern of the veins in a leaf."

Internet Infections

According to a July 2011 article in *TechNewsDaily*, computer scientists at Johns Hopkins University have learned that Twitter posts can reveal key patterns and trends related to the users' health (*www.technewsdaily.com/scientists-monitor-health-woes-via-twitter-2926/*).

They have found valuable data related to which ailments are on the rise, and where, as well as which medicines (including over-the-counter) are working best. After analyzing two billion public tweets from May 2009 to October 2010, JHU scientists determined that Twitter posts could be a very useful source of public health information.

A July 2011 article on *Tech News Daily* states that in a recent survey by computer security company Avira (*www.avira.com/*), 36% of people aren't sure if there is information on the Internet that could hurt their online reputation (*www.technewsdaily.com/many-Internet-users-unsure-of-their-web-reputation-2914/*). Although 40% of people said that there isn't any negative information about them on the Internet, most of them admitted that they don't monitor the information that's published about them online.

Only 15% admitted to knowing about negative information about them on the Internet, and that they'd delete it if they knew how. While only 4% said that they had erased all information about themselves on the Internet.

Squidoo has an online article on "How to Remove (*www.squidoo.com/personalInformation*) Your Information from People Search Databases, Social Networks and Search Engine Results." Click on "special tools" embedded in the article, which brings up a list of companies who will scrub your negative or too personal information from the Web. Or just scroll down through multiple articles on the topic, ending with comments.

Latest Anti-Piracy Actions

In July 2011, Reuters reported that U.S. Internet service providers (including Verizon, Time Warner and Comcast, among others) have agreed to a new anti-piracy efforts (*www.reuters.com/article/2011/07/08/us-internet-piracy-idUSTRE7667FL20110708*). The Internet providers all agreed to alert customers up to six times, when it appears that the customers are using their accounts for illegal downloads of copyrighted films, music or TV shows.

If a customer continues the illegal downloads despite the warnings, the service providers can then slow down the

customer's Internet speed, or redirect them to a specific Web page until the customer contacts the company. Internet access will not be terminated, since it is hoped that the repeated warnings will impress upon customers the illegality of their participation in these downloads. Or else that parents will finally realize their kids' involvement in these illegal downloads.

Humans and Computers Continue to Merge

According to an April 2011 article in *Science Centric*, researchers have used a technique (usually associated with identifying epilepsy) to show how a computer can react (*www.sciencecentric.com/news/11040906-humans-can-control-cursor-with-power-thought.html*) to our thoughts. Scientists at Washington University demonstrated that people with brain electrodes linked to a computer, can control a monitor's cursor using words spoken out loud—or just thought in their heads. The latter has huge implications for patients with limited movement, or who have lost their speech ability.

A June 2011 article in *Tech News Daily*, discusses how robotics reseachers in Japan have created a new hand-controlling technology called "Possessed Hand (*www.technewsdaily.com/possessed-hand-cyborg-hand-university-tokyo-2902/*)." By attaching electrodes and a computer to precise points on the wrist, a person's "Possessed Hand" can play a musical instrument "far better than their natural skill level would otherwise allow."

E-mail Overload

A February 2011 article on *All Facebook* declares that e-mail usage among Teens (*www.allfacebook.com/email-use-declines-59-among-teens-can-messages-surge-2011-02*) is in a steep decline. A ComScore (*www.comscore.com*) survey found that e-mail usage overall declined 8% in 2010. While usage by 12-17 year olds went down 59%—more than all the other age groups combined.

It is speculated that in the age of Twitter and short Facebook comments or private messages, teens view "e-mails as too long and/or formal to be used in daily, non-professional communication." Others think that the data only reflects Facebook's aggressive recruiting of young people. And that when the teens end up in careers in ten years—or even when they enter college and need to stay in contact with Mom and Dad—they will gravitate back to e-mail.

Curiously, according to this same survey, e-mail usage actually went up in the age groups 55-65+. The speculation is that older people are finally overcoming their hesitancy to embrace the Digital Age. And that they are now ready and eager to communicate with others through e-mail.

But even adults in careers can dread their daily slog through volumes of e-mail, where senders all expect a response. According to a July 2011 article in TechCrunch M.G. Siegler of TechCrunch has

"The brain implant was a success, but I can't find a hat that fits."

declared that he is going without e-mail (*techcrunch.com/2011/07/06/i-wouldn't-say-ive-been-missing-it/*) for the rest of July. He says that he can still communicate through alternative methods like Twitter, where people don't expect replies to every Tweet.

About the same time M.G. Siegler went on (temporary) strike against e-mails, Google came out with "New Sorting Styles For Gmail (*www.huffingtonpost.com/2011/07/08/gmail-sorting-inbox-email_n_893101.html*)." Google announced that, like their earlier "Priority Inbox," they are getting ready to introduce a "redesigned interface" for users to sort how their incoming e-mails appear in their inbox. "Important First" will prioritize both read and unread e-mails that are deemed important, and place them at the top of the user's inbox. Or the user can choose to place "Unread First" or "Starred First" e-mails at the top of their inbox.

So clearly, our Digital Age continues to evolve. Hackers and malware are increasingly becoming a problem for Corporate America. While private citizens worry about theft of private information, or how to scrub negative personal information from the Internet, we're embracing technological innovation in medicine and grocery shopping. While, at the same time, succumbing to "e-mail burn-out." What's next? Stay tuned!

Marilyn is a freelance writer and humorist with many interests. She has sold teen anti-drug articles, as well as had numerous esoteric articles published. She has almost seventy mini-articles on Helium.com (*www.helium.com/users/573405/show_articles*), and is writing a humorous Young Adult Science Fiction series, *Chronicles of Mathias*. Volumes One and Two have received a "Gold Star for Excellence" from TeensReadToo.com (*www.teensreadtoo.com/ReptilianRebirth.html*), and are available from most on-line bookstores.

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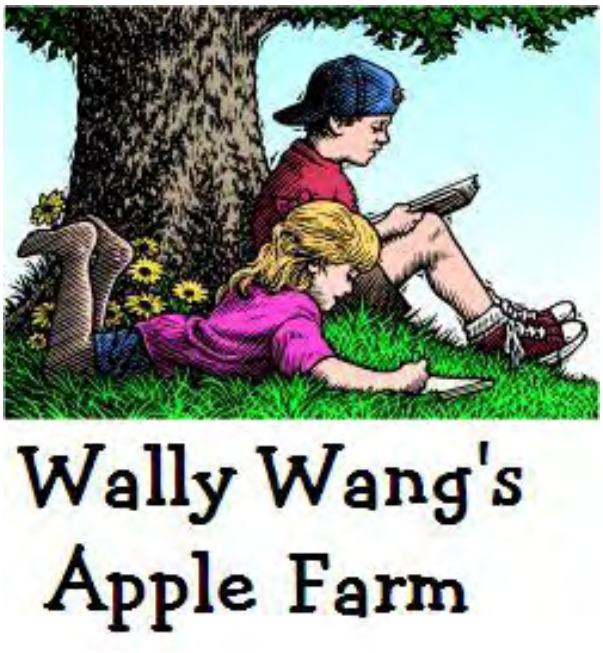

Wally Wang's Apple Farm

“Victims of Apple” by Wally Wang

Victims of Apple; Virtual keyboard for desktops; Mac OS X 10.7 Lion woes; The tide is turning; Dumb and smart users; Clean your caches; Mouse locator; An Adobe Flash alternative; Resizing windows in Mac OS X 10.7 Lion.

Nintendo recently cut the price of their portable gaming console, the Nintendo 3DS (*seattletimes.nwsource.com/html/businesstechnology/2015760053_nintendo29.html*), partially due to the fact that many casual gamers prefer using their iPhone, iPad and iPod touch as a gaming device instead. Electronic Arts, one of the larger video game makers, now claims that dedicated game consoles only make up 40 percent (*www.industrygamers.com/news/ea-ceo-consoles-now-only-40-of-games-industry/*) of the industry. Electronic Arts CEO, John Riccitiello, said that "Our fastest growing platform is the iPad right now and that didn't exist 18 months ago."

Part of the problem is that creating, marketing and distributing video games for dedicated game consoles is time-consuming and expensive. In comparison, anyone can create a video game for iOS, post it on the App Store, and start selling directly to consumers right away.

Creating video games for game consoles requires so much time and money that most companies simply crank out clones of previously successful games to insure profitability. On the other hand, creating games for mobile devices like iOS is easy and fast, which encourages more experimentation and a greater variety of games. With the ability to play high-quality video games on mobile devices like smart phones and tablets, dedicated portable game consoles now look as antiquated as personal digital assistants (PDAs) that can only store contact information.

Nintendo isn't the only victim of Apple's success. Nokia has been struggling for years with declining market share. Nokia's plan is to support Windows Phone 7 for smart phones starting in 2012. Of course, if Microsoft follows through on their plan to cram Windows 8 into mobile devices like smart phones and tablets, Nokia faces two problems.

First, there's no guarantee that switching to Windows Phone 7 will increase sales of Nokia smart phones. Second, switching to Windows Phone 7 could be a dead end if Microsoft succeeds in getting Windows 8 to run on smart phones and tablets. Microsoft has already said that Windows Phone 7 will not be used for tablets and if Windows 8 can run on tablets and smart phones, Windows Phone 7 may not have a future on smart phones either.

Research in Motion (RIM) is yet another casualty of Apple's success. While American analysts downgrade RIM's future, Canadian analysts see the situation in a much brighter light (*www.montrealgazette.com/technology/CANADIAN+PRIDE/5160891/story.html*). As RIM layoffs off 11 percent of its workforce, struggles to transition its smartphones (*www.thestar.com/business/companies/rim/article/1031550—rim-layoffs-blamed-on-*

failure-to-innovate) to a new operating system (Blackberry OS 6 to QNX, which powers their Playbook tablet), and deals with tepid sales of its Playbook tablet, their current products look obsolete and their latest products look unappealing. Despite this, John Jung of Canada's Technology Triangle, a local economic development agency, says, "I don't think they're struggling. I think they're making the moves that are necessary to succeed."

Figure 1. Research in Motion's stock price keeps dropping.

Canadian optimism about RIM seems skewered to avoid facing unpleasant facts, much like Acer did when they initially announced their Iconia tablet was selling so well they couldn't make enough of them (*www.uberphones.com/2011/05/acer-iconia-tablet-may-face-shortages/*) to meet demand. Less than a month later, Acer slashed forecasts (*www.electronista.com/articles/11/04/28/microsoft.q1.2011.sees.apple.outpace.it.in.profit/*) of their Iconia Tab from five to seven million to as low as three million, indicating that the Iconia Tab wasn't selling out as initially reported. Acer had hoped that their Iconia Tab could tackle the tablet market since the netbook market has plunged by 40 percent.

After tepid sales of RIM's Playbook and Hewlett-Packard's TouchPad, companies jumping on the Android tablet bandwagon have found that people are choosing the iPad over Android tablets by up to a 24 to 1 ratio (*technolog.msnbc.msn.com/_news/2011/07/25/7162598-why-ipad-is-stomping-android-tabs-24-to-1*). For the same price (or more) as an iPad, you can get a rival tablet that doesn't quite work as well and has fewer apps to choose from. If you're going to get a tablet that tries to work like the iPad, why not spend the same amount of money (or less) and get the iPad?

Asymco has an interesting graph that shows how far Apple has come in the smart phone category alone (http://www.asymco.com/2011/07/29/apple-captured-two-thirds-of-available-mobile-phone-profits-in-q2/). Back in 2007 when Apple first introduced the iPhone (and critics claimed it was useless), Apple only had 1 percent of the mobile phone market. Four years later, Apple has 66 percent of the mobile phone market.

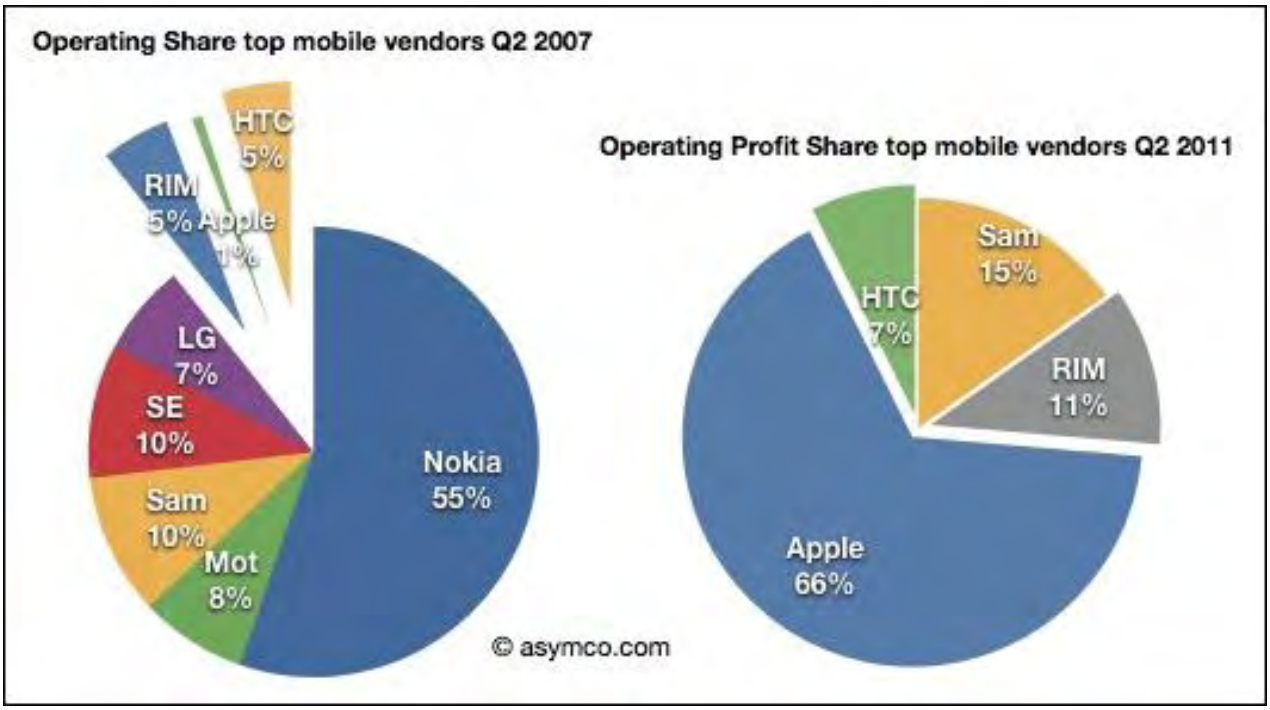

Figure 2. Apple has over two-thirds of the profits in the smart phone market.

Multiple companies in different categories are falling victim to Apple not necessarily because Apple is so great, but because these other companies are stuck in neutral, cranking out mediocre products in search of short-term profits at the expense of long-term planning. Rather than focus exclusively on profits, companies should focus on leading their field with innovative products that work as advertised and stop avoiding innovation to protect their current product line.

If Apple behaved like most companies, they would have never released the iPhone in order to protect the profits made from the iPod. Then as other companies released smart phones that eliminated the need for a separate music player, sales of the iPod would have plummeted and Apple would have been hurt.

If Apple had tried protecting the profits of their Macintosh computer, they never would have released the iPad. Then as rivals introduced tablets that ate into sales of computers, Apple would have been hurt once again.

By selling products that actually make people's lives easier, the profits will follow. By offering a better product than their current line-up, Apple cannibalizes their own product sales but replaces them with something better before a rival can steal away their customers. In comparison, other companies protect their current product line until it's obsolete, and then it's too late to catch up. How come other companies can't figure out Apple's so-called secret of success?

Virtual Keyboard for Desktops

What kills innovation is clinging to the benefits of the past while ignoring the potential greater benefits of the future. This is the reason why the whole iPad debate was pointless, by focusing on how the iPad didn't duplicate current technology, critics ignored how the iPad might be an improvement over current technology.

Innovation isn't just about improving current technology, but making current technology obsolete. In Apple's latest patent filing, they plan to make today's mechanical keyboards obsolete (*www.patentlyapple.com/patently-apple/2011/07/apple-invents-new-flat-keyless-keyboard-for-desktops-more.html*).

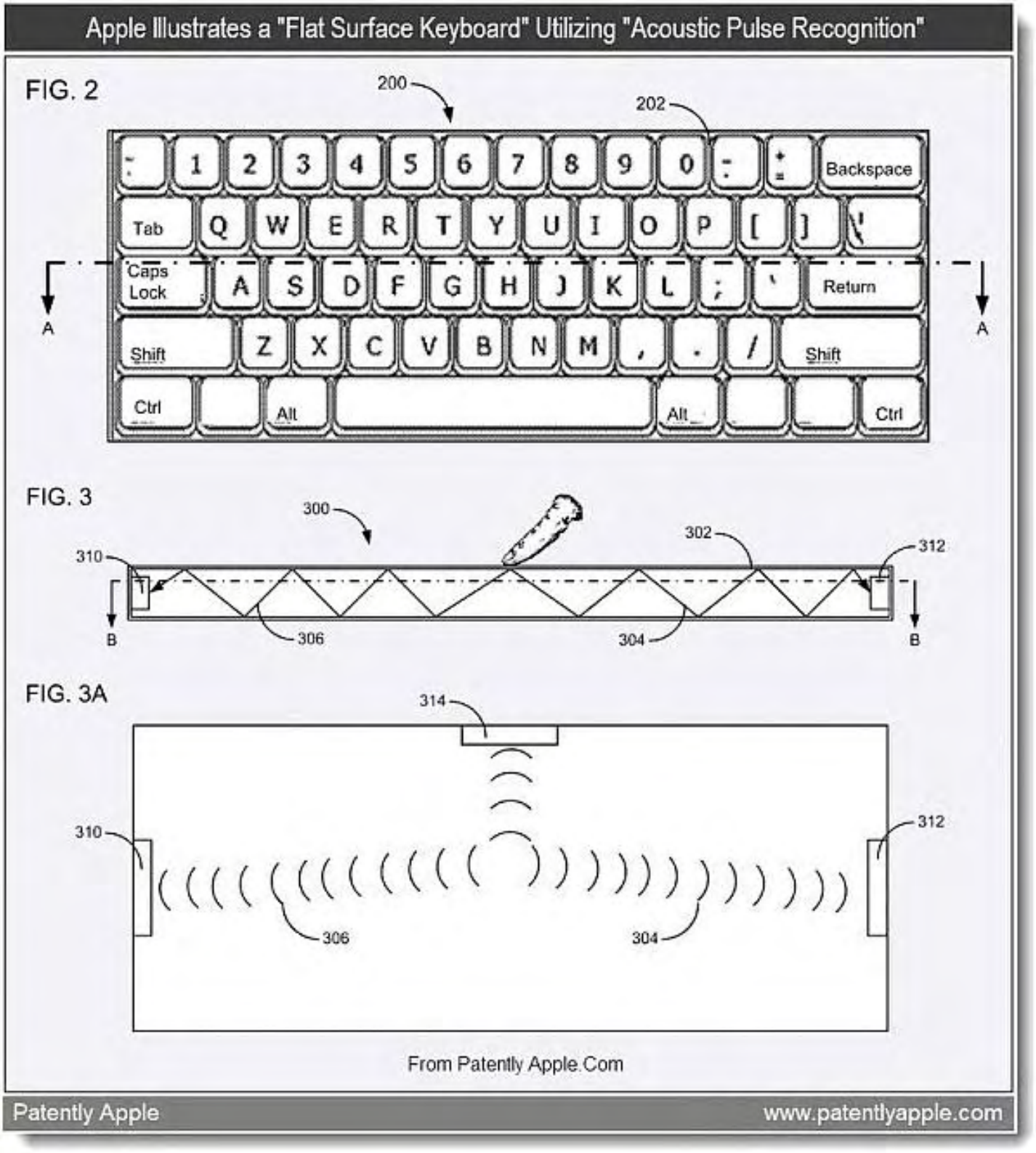

Figure 3. Apple's latest patent for a virtual keyboard for computers.

The major advantage of today's mechanical keyboards is the tactile feedback it provides that a virtual keyboard on a flat surface cannot, so Apple's patent provides ways to provide such feedback. Assuming that this feedback is adequate, virtual keyboards give users far more flexibility than mechanical keyboards.

A virtual keyboard could adapt itself to your current application, providing specialized keys for spreadsheets or games, or let you easily switch between multiple foreign languages. Need to type scientific symbols or mathematical equations?

A virtual keyboard can make this easy, a mechanical keyboard cannot.

Virtual keyboards can operate in a dusty environment where mechanical keyboards need a protective covering. In an industrial setting, what would be cheaper? Buying a specialized mechanical keyboard to operate machinery or simply reprogramming a virtual keyboard to do the same task?

Virtual keyboards are already proving adequate for tablets, especially with their ability to predict words (not always accurately), so it's only a matter of time before virtual keyboards start appearing for desktop and laptop computers as well. You can cling to the familiarity of mechanical keyboards, but why stop there? Why not cling to the familiarity of typewriters instead of computers and quill pens instead of ballpoint pens? There's always some older technology that you can revert back to while claiming that the new technology is useless because it can't exactly duplicate everything the older technology offers.

To see how the PC world clings to ancient technology, just take a look at the numeric keypad on most PC keyboards compared to keyboards designed for Macintosh computers. Most PC keyboards include a separate cursor keypad and a numeric keypad that offers a Num Lock key that lets the numeric keypad double up as either a cursor keypad or a numeric keypad.

Figure 4. The numeric keypad on PC keyboards can double up as a cursor keypad.

The reason for this dual purpose for the numeric keypad is that the original IBM PC keyboard didn't include a separate cursor keypad. When people complained, IBM eventually offered a separate cursor keypad, but retained the numeric keypad's feature to switch to typing numbers or moving the cursor. With a separate cursor keypad available on keyboards for decades, does anyone ever switch the numeric keypad to behave like a cursor keypad any more?

Figure 5. The original IBM PC keyboard lacked separate cursor keys.

On keyboards designed for the Macintosh, the numeric keypad only lets you type numbers, not move the cursor around because there's already a separate cursor keypad, so why offer two cursor keypads? While the PC world still supports the dual-purpose feature of a numeric keypad that most people never use as a cursor keypad (and which complicates the appearance of the numeric keypad), Macintosh keyboards simplify the keyboard by offering a cursor keypad and a numeric keypad solely designed to type numbers.

Figure 6. Macintosh keyboards offer a numeric keypad that only types numbers.

The PC keyboard may be more versatile, but it's also more complicated and rather pointless to continue offering a feature that few people use, let alone understand its purpose any more. Clinging to outdated technology simply makes life more complicated for no apparent reason, much like referring to the hard drive as the C: drive (since computers used to have two floppy drives designated the A: and B: drives).

Mac OS X 10.7 Lion Woes

Upgrading any software holds the potential of causing problems, so you might want to wait until other companies can insure that their software works under the latest Mac OS X 10.7 Lion. We already know that Quicken won't work under Lion since Quicken is a PowerPC program, but GnuCash (*www.gnucash.org/*), an open source financial manager program, won't work under Lion either.

The problem is simply that GnuCash needs a file that Lion no longer provides. The GnuCash developers are aware of this problem and should have a patch available soon, but waiting for a solution is never as useful as having a solution available right now.

GnuCash is not the only program that works fine under Mac OS X 10.6 Snow Leopard, but suddenly dies on Mac OS X 10.7 Lion. VMWare's Fusion mostly works on Lion but has trouble working with USB ports. However, Parallels seems to work perfectly under Lion, so if you're looking for a virtual machine solution, Parallels is the better option for now.

If you're upgrading a current Mac with Lion, make sure all your crucial software works under Lion before making the transition. If you're not sure, it's best to wait a while until other companies can update their software for Lion.

The Tide is Turning

Rival tablets are having a hard competing against the iPad since they can't offer much of a price advantage. Now ultrathin laptop manufacturers are finding it difficult to compete (*news.softpedia.com/news/Asus-Can-t-Keep-Ultrabook-Prices-Bellow-1000-as-Intel-Desires-213429.shtml*) on price with the MacBook Air. If an ultrathin PC laptop costs more than a MacBook Air, what's the advantage of buying the PC?

Toss in the hassle of deleting pre-installed software on every new PC, running defragmentation, Windows registry cleaners, and antivirus software constantly, and dealing with the problem of making sure you buy 32-bit software for

your 32-bit version of Windows (or 64-bit software for your 64-bit version of Windows), ask yourself how appealing that Windows PC might be when it costs more than a Macintosh?

Mike Elgan, the editor of Windows Magazine, admitted that they used Macintosh computers (*www.cultofmac.com/how-the-editor-of-windows-magazine-became-an-apple-fanboy/105882*) rather than Windows PCs to layout the magazine. Mike also switched from using a Windows PC to an iMac as well.

"My main PC, a Sony VAIO laptop, burned itself out. Literally. It overheated, despite a fan that sounded like a jet engine. It still works, but can't connect to the Internet. Normally, I would have trouble-shooted the problem, fixed it or bought a new laptop. I also have older PCs around that I could use. But this time, my son was about to leave on a very long trip abroad and offered to let me use his 27-inch iMac. I was too busy to deal with the Sony, so I just used the Mac.

"I've found it so easy and enjoyable to use—beautiful screen, silent operation, incredibly elegant industrial design, etc., etc.,—that I haven't even bothered to troubleshoot the laptop. I don't even want to look at it."

When the editor of Windows Magazine can compare a Macintosh to a Windows PC and decide that the Macintosh is better, what does that say about the desirability of Windows PCs?

The University of Texas recently analyzed the types of computers used on their networks (*www.utexas.edu/its/network/reports/Campus%20Network%20Report%202011.pdf*). For wired Internet connections, Windows dominated with 58 percent while Mac OS X only had 23 percent.

However, wireless Internet connectivity showed that Mac OS X took 52 percent while various versions of Windows took up the remaining 47 percent. In mobile devices, the report found that the iPhone grabbed 53 percent and and the iPod took up an additional 30 percent. The nearest competitor was Android at 12 percent.

For department wired networks, Microsoft operating systems dominate (**Figure 22**). The ratio of Microsoft versus Apple devices is relatively unchanged from the last survey point, after correcting for unknowns. There has been an increase in Linux devices.

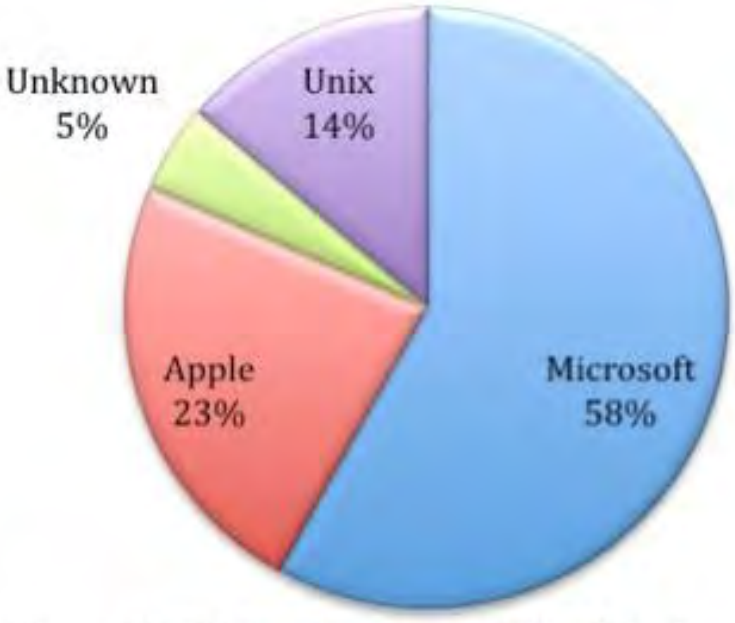

Figure 22: OS for Department Wired Devices

Wireless networks are different: Apple operating systems are the

Figure 22: OS for Department Wired Devices

Wireless networks are different: Apple operating systems are the majority for traditional devices (ex: laptops) (**Figure 24**), and dominate mobile devices (ex: phones) with over 85% share. However, Android's share of mobile devices is growing rapidly, doubling from fall 2010 to spring 2011 (**Figure 23**).

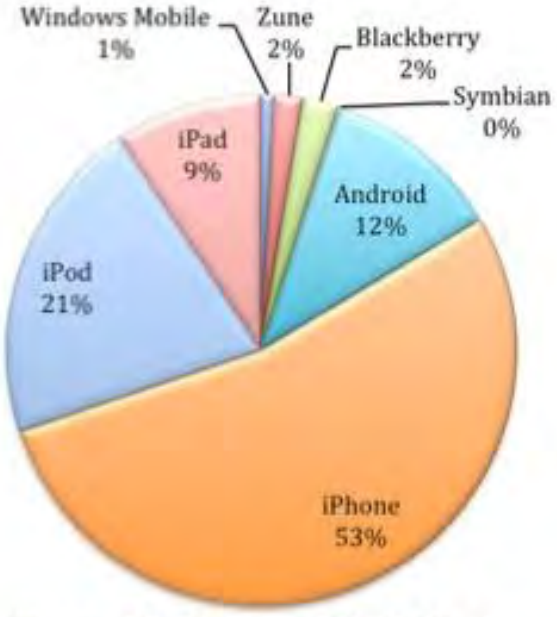

Figure 23: OS for Mobile Devices

Resnet wired networks were more similar to department wired networks, with the majority of devices running Microsoft operating systems. However, wired use represents only 1/3 of total Resnet use, most of which has moved to wireless where Apple dominates.

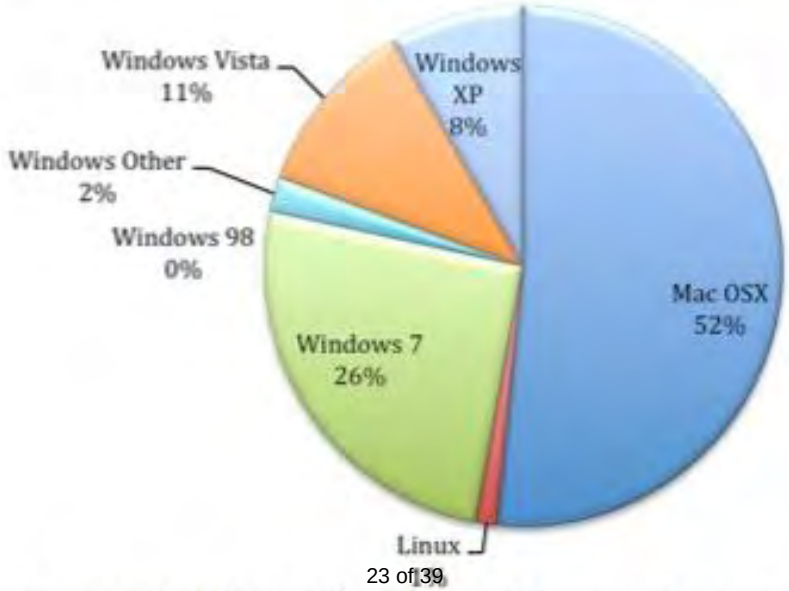

Figure 24: OS for Traditional Wireless Devices

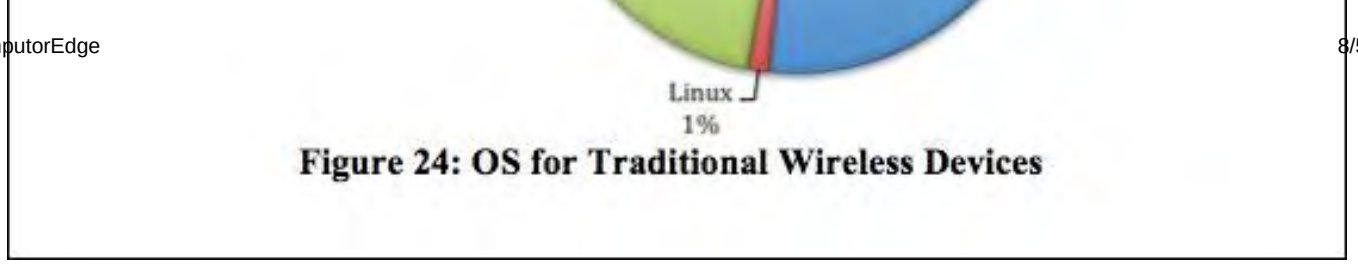

Figure 24: OS for Traditional Wireless Devices

Figure 7. Apple products are increasingly popular among University of Texas students.

Students at the University of Texas appear to be adopting iOS for mobile devices and Mac OS X for laptop computers. If students are adopting iOS and Mac OS X, it's likely that as they graduate, they'll shift the corporate world to iOS and Mac OS X as well. If Microsoft can boast of selling 400 million licenses for Windows 7, yet only gain 26 percent of the wireless share at the University of Texas (half the share of Mac OS X), the appeal of Windows to college students (and future corporate workers) doesn't appear too promising.

Dumb and Smart Users

A recent study by AptiQuant (http://) claims that people who use the Opera browser (*www.opera.com/*) have higher IQs (*www.pcworld.com/article/236944/internet_explorer_users_are_kinda_stupid_study_suggests.html*) than people who use Internet Explorer.

The cause probably isn't that stupid people prefer Internet Explorer and smart people use Opera, but that people with higher IQs are more willing to explore alternatives while people with lower IQs are less likely to do so. To even use Opera, you have to be aware that there are alternatives to Internet Explorer and then go out and look for them.

Among the many alternatives available including Chrome, Safari and Firefox, Opera tends to be the most innovative browser available, so people with higher IQs likely spend more time comparing different browsers and after weighing the merits of different options, likely choose Opera for its advanced features that other browsers tend to copy later.

AptiQuant reported that "From the test results, it is a clear indication that individuals on the lower side of the IQ scale tend to resist a change/upgrade of their browsers."

If people with lower IQs tend to resist change, perhaps AptiQuant should conduct a study to determine who has higher IQs, people who defend Windows PCs without looking at alternatives or people who are willing to look at alternatives and objectively compare all of their technology options so they can choose the best one for themselves?

Clean Your Caches

Many programs, such as your browser, uses something called a cache. Basically a cache stores frequently accessed information so rather than look for that information all over again on the Internet, your browser just looks for it in its cache.

The problem with a cache is that over time, it stores more and more information until it starts getting too big. When that happens, the cache can actually slow down your computer since it wastes too much time searching its cache. So if you feel your computer seems to be running sluggishly, one solution is to empty its cache.

For the Macintosh, you can download and use a program called Cache Out X (*www.trilateralsystems.com/cacheoutx/*), which is free, but requests donations. When you run Cache Out X, it shows you how much space your current caches are taking up.

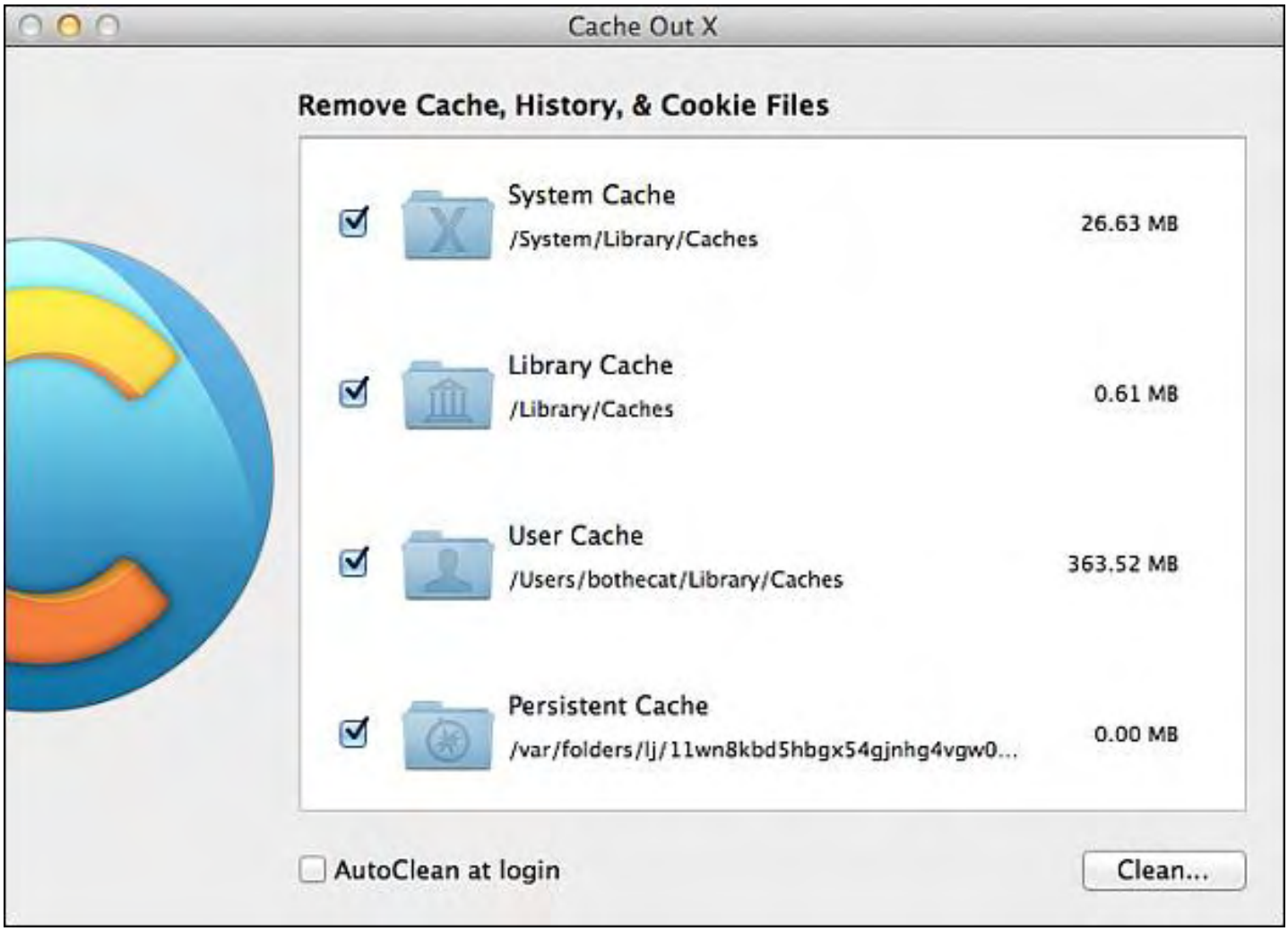

Figure 8. Cache Out X can empty out your caches to speed up your computer.

Just select the caches you want to clean, click the Clean button, and the program empties your selected caches. If your caches were huge, you might see a performance difference, but if your caches are relatively small, you probably won't see much of a difference.

Mouse Locator

One nice feature of Windows is that you can hold down a special key and Windows will display circles around your mouse pointer so you can find it easily on the screen. Mac OS X lacks this feature so if you find yourself constantly losing the mouse pointer on your screen, download a free copy of Mouse Locator (*www.2point5fish.com/index.html*).

You can customize Mouse Locator in your Systems Preferences window to define a hotkey such as F1 or F7. When you press your designated hotkey, Mouse Locator displays green circles around your mouse pointer so you can find it easily on the screen.

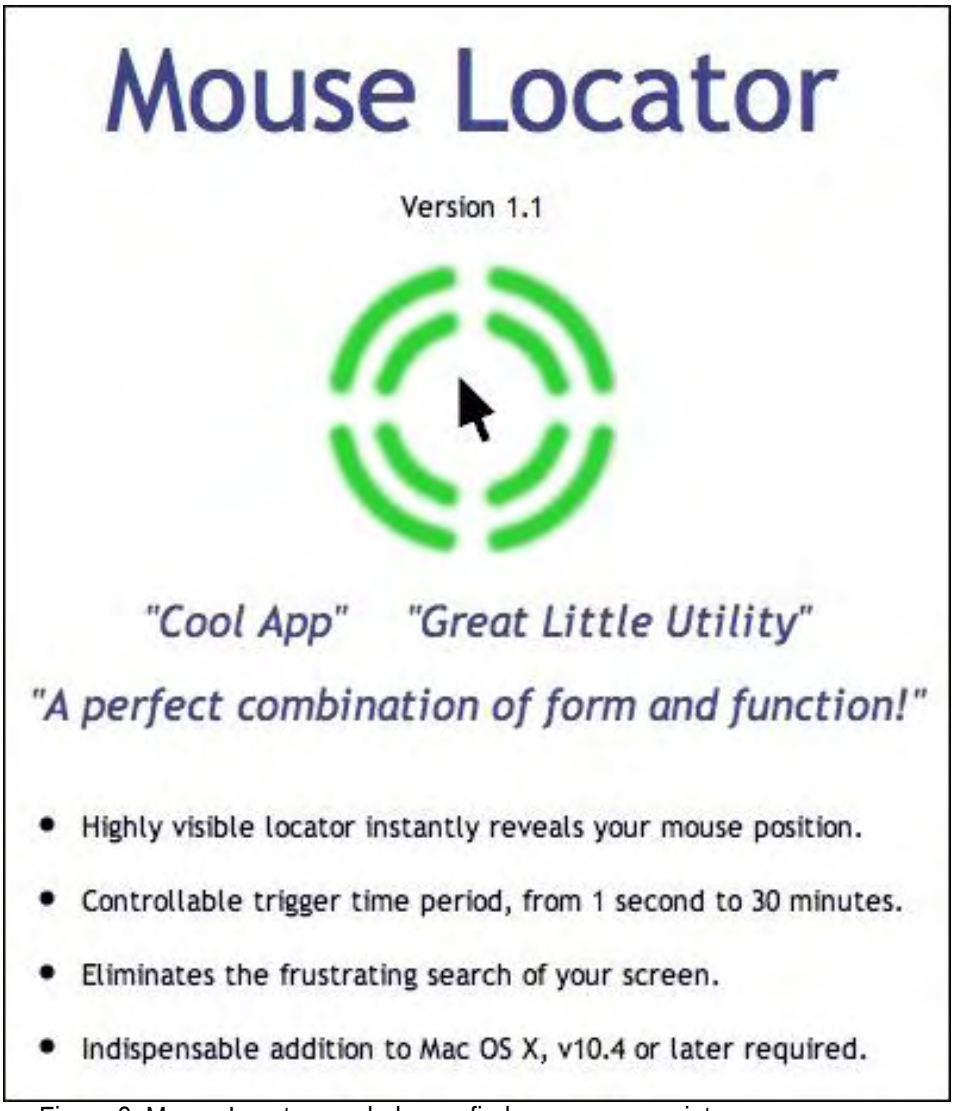

Figure 9. Mouse Locator can help you find your mouse pointer on your screen.

An Adobe Flash Alternative

Flash may be the current video standard for the Internet, but its dominance is far from assured, especially since Adobe has been unable to deliver a mobile version of Flash that works identically to Flash on regular computers. To move beyond Flash, Adobe is now offering a free preview of their new HTML5 tool dubbed Adobe Edge (*labs.adobe.com/technologies/edge/*).

The commercial 1.0 version of the program will be available for a price, but you can preview the early beta version for free. By experimenting with Adobe Edge, you can see how well HTML5 works compared to Flash. HTML5 may never eliminate Flash altogether, but it's fast becoming an important technology to know and understand, especially if your livelihood depends on staying current with technology.

* * *

One strange limitation of Mac OS X has been that you can only resize a window by dragging the bottom right corner. Fortunately in Mac OS X 10.7 Lion, you can now resize windows by dragging any edge. For those switching from Windows to a Macintosh running Lion, this long overdue feature can make the Macintosh seem more familiar.

As more Windows users switch to the Macintosh (*gadgetbox.msnbc.msn.com/_news/2011/07/30/7197964-*

living-with-lion-confessions-of-a-mac-switcher), we can wait for Microsoft's upcoming Windows 8 and see if it offers any features that would compel Macintosh users to switch back to a PC.

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 (*www.amazon.com/gp/product/1593271646?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271646*),
My New iPhone (*www.amazon.com/gp/product/1593271956?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271956*),
My New iPad (*www.amazon.com/gp/product/1593272758?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593272758*),
Steal This Computer Book 4.0 (*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*),
Beginning Programming for Dummies (*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*),
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*),
Strategic Entrepreneurism with Jon Fisher and Gerald Fisher (*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.smashwords.com/books/view/18896*).
Mac Programming For Absolute Beginners (*www.amazon.com/gp/product/1430233362?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362*)
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*)
In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method" (*www.15minutemoviemethod.com/*) along with blogging about electronic publishing and how authors can take advantage of technology at his site "The Electronic Author." (*www.wallacewang.com*) Wally can be reached at *wally@computoredge.com*.

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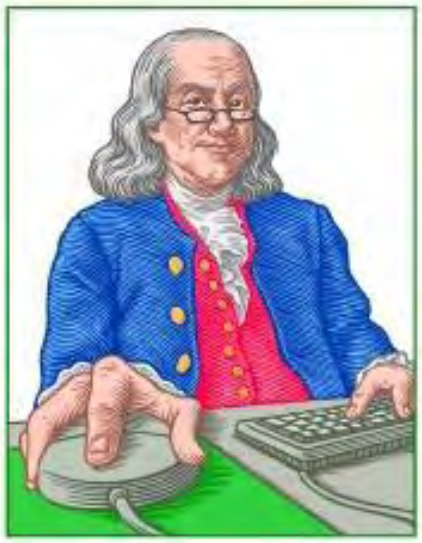

Linux Lessons: Tips and Tricks from Users

“Setting Linux clocks over the network with NETTIME.**”** by Tony J. Podrasky

Tony shows us how to use the master timekeeper computer to set all the other computer clocks and report back.

Filename: NETTIME

Use: Ask the hosts on your network what time it is.

Do you have more than one machine on your network? If so, you might find this script useful. The script contains a list of the hosts on your network. When you do a <NETTIME> it will <telnet> to all the hosts, using port 13, one at a time, and save the results to the file (nettime_log) as well as print the results on the screen of the xsession you called it from.

Example:

```
tonyp% NETTIME
Connected to happy.
02 AUG 2011 13:53:06 PDT

Connected to dopey.
Tue Aug  2 13:53:06 2011

Connected to sneezy.
02 AUG 2011 13:53:06 PDT

Connected to sleepy.
02 AUG 2011 13:53:06 PDT

Connected to grumpy.
02 AUG 2011 13:53:06 PDT
Connected to doc.
02 AUG 2011 13:53:06 PDT
Connected to bashful.
02 AUG 2011 13:53:06 PDT
Connected to crashy.
02 AUG 2011 13:53:06 PDT
Connected to downey.
```

```
8:53:06 PM 8/2/2011
```

We see that they all report the same time, because I am using <xntp> the net-time daemon, who is running on happy. Happy serves time on the network and the other hosts pick it up and set their clocks. Happy has an atomic clock receiver connected to his serial port, which is why he is the net authority on time.

Interesting to note (above) are two anomolies: Dopey and Downey report the correct time but in a different fashion. All the rest of the computers are running RedHat 2.4.21-4.ELsmp, while Dopey is running a 1996 Slackware kernel. Dopey is a Toshiba laptop with a 37MHz CPU, 8MB of memory, and a 350MB HDD. Dopey's sole job now is to sit next to my bed and play my e-mail in Morse code while I try to fall asleep. I paid $5,000 for dopey back in 1996. When dopey died a few years ago, I bought another one like him on eBay—for $5.00.

Downey reports the time in 12-hour format because that's the way his proprietary operating system does it.

This file is quite similar to last week's example of the <PING> shell file.

————CUT HERE————

```
#!/bin/csh -f
touch /var/log/nettime_log
echo >/var/log/nettime_log
foreach node (happy dopey sneezy sleepy grumpy doc bashful crashy downey)
    touch /var/log/nettime_tmp
    echo >/var/log/nettime_tmp
    echo -n "$node "  >>/var/log/nettime_tmp
    telnet $node 13   >>&/var/log/nettime_tmp
    grep Connected /var/log/nettime_tmp
    grep 201       /var/log/nettime_tmp
    grep unable    /var/log/nettime_tmp
    grep failure   /var/log/nettime_tmp
    echo " "
    cat /var/log/nettime_tmp >>/var/log/nettime_log
end
```

————CUT HERE————

First, open up an additional xsession (a new window) and type the following command:

<telnet YOUR_HOSTS_NAME 13>

You should see a result similar to the following:

```
tonyp% telnet happy 13
Trying 15.19.89.12...
Connected to happy.
Escape character is '^]'.
```

```
02 AUG 2011 14:10:59 PDT
Connection closed by foreign host.
tonyp%
```

How It Works:

#!/bin/csh -f	*Use the CSH shell interpreter.*
touch /var/log/nettime_log	*Create the file <nettime_log> in the /var/log directory.*
echo >/var/log/nettime_log	*Echo a "new line" into the file.*
foreach node (happy dopey sneezy sleepy grumpy doc bashful crashy downey)	*Do the following for each host on the network.*
touch /var/log/nettime_tmp	*Create the file <nettime_tmp> in the /var/log directory.*
echo >/var/log/nettime_tmp	*Echo a "new line" into the file.*
echo -n "$node " >>/var/log/nettime_tmp	*Echo the host's name into the file.*
telnet $node 13 >>&/var/log/nettime_tmp	*Use <telnet> to connect to the node using the <datetime> port*
grep Connected /var/log/nettime_tmp	*Get the line with "Connected" on it because it has the hosts' name.*
grep 201 /var/log/nettime_tmp	*Get the line with "201", which is the date line (see note below).*
grep unable /var/log/nettime_tmp	*One of the failure messages that might appear.*
grep failure /var/log/nettime_tmp	*The other failure message that might appear.*
echo " "	*Add a new line to make it look clean.*
cat /var/log/nettime_tmp >>/var/log/nettime_log	*Copy the results to the nettime_log.*
end	

Note: The 201 represents the years 2010-2019. That is the only thing that remains constant in the time report. You'll have to remember to edit the file January 1st, 2020 and change the line from "201" to "202". I forgot to do that when the year changed from 2009 to 2010. Kept me busy for a couple of hours trying to figure out what went wrong...

—

```
Silly Signature Du Jour:
Tony J. Podrasky | When I die, I'd like to go peacefully.
                 |   In my sleep.  Like my grandfather.
                 |     Not screaming.
                 |       Like the passengers in his car.
-:-ETX-:-
```

NOTE: I give my shell files uppercase names so that *I know* they are my shell files and not the system's binaries. For

example, when I save the data (the commands between the "CUT HERE" lines, which is the actual shell file) I might call it "VI", which is *not* to be confused with the system's "vi" file—but I call it "VI" because it calls (or uses) the system's "vi editor."

Tony has been in the computer field since 1976 when he started working for Data General Corp as a field engineer. Later going on to design hardware interfaces, write patches for operating systems, and build networks. It was in 1995 while working with the military on several projects that he ran into a "spook" who showed him a laptop that ran a then-unknown O/S called "Linux." "A laptop running a form of UNIX tony = a marriage made in heaven!" Tony can be reached for questions at Linux Questions for Tony (*hunybuny@netzero.net*).

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Worldwide News & Product Reviews

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

Does "Wi-Fi Sniffing" Pass the Smell Test?; DDoS Attacks Seen as an Escalating Game of "Hot Potato"; Dead Block for Xbox 360.

Does "Wi-Fi Sniffing" Pass the Smell Test?

Chicago-based digital strategist Zack Christenson, who writes articles on tech policy, writes in this week about the risks associated with the practice of Wi-Fi Sniffing:

Wi-Fi is quickly becoming a standard feature on cell phones today, but with that technology comes the potential for privacy issues. Imagine if, with just one simple unprotected number, you could track nearly a person's every move, know the places they frequent, and see where they live? Google has made it possible.

With a predicted 90% of all smartphone users having Wi-Fi enabled phones by 2014, the issue of how to protect your information from prying eyes is working its way to the forefront of public discourse. And it's not just smartphones. Shipments of Wi-Fi enabled devices could reach 3.5 billion devices by 2014. That includes televisions, phones, notebooks, tablets, game consoles—virtually all of your computing devices do, or will, have a Wi-Fi signal. So what kind of privacy risks do these devices pose to the average consumer?

Many are concerned with privacy of location. All Wi-Fi devices emit a unique signal, an address that uniquely identifies that particular device, known as a MAC address. Have an iPhone? Scroll to the settings menu and you can easily find yours. But why does this matter? It was recently revealed that Google's Street View cars, while driving up and down streets, had collected the unique identifiers of millions of Wi-Fi enabled devices—laptops, phones, and anything else emitting a signal. Google then made this data public, which enabled anyone to access the street locations and signal identifiers of millions of people. So, if you knew someone's MAC address, you could use Google to find out where they live, where they work, or what coffee shops they like to hang out in.

This revelation comes on the heels of another Google scandal that involved Google's Street View cars collecting data from unencrypted Wi-Fi networks. Google admitted its wrongdoing and promised to delete the data. This issue is still winding its way through the courts, where one judge recently ruled that this Wi-Fi sniffing, even if done on unprotected networks, could be considered wiretapping.

Wi-Fi sniffing isn't restricted to Google. In April, it was found that Apple was recording the location of iPhone and iPad users as they moved about. The information was stored and time-stamped, so Apple could look at the logs and see where you had been and when. And just last week, it was revealed that a company called TruePosition, which makes software that can track your location and is used so police can find you in an emergency, is also selling their software to foreign governments. This technology in the wrong hands could be disastrous. How soon before it's being sold to the US government?

Recent hearings before the Senate Select Committee on Intelligence illustrated that the government is one-step ahead of Google and the rest, they've been tracking us for some time. Testifying before the committee was Matthew Olsen, a lawyer at the NSA who has been nominated to lead the National Counterterrorism Center. Asked if the government is using cell phones to track Americans as they move throughout the country? The answer: "There are certainly circumstances where that authority may exist." Not very reassuring.

Should consumers really be alarmed by the shear vastness of data being used to track them through cell phones and wireless products? Maybe. While the benefits of companies like Google and Apple collecting your data are tangible, it would be better if there was more transparency about what exactly they're collecting the data for and how it's being done. Only when armed with that information can consumers decide for themselves, if it's something they want.

Read more at The American Consumer Institute: Center for Citizen Research (*www.theamericanconsumer.org/2011/07/29/wifi-sniffing-consumers-deserve-to-know-the-risks/*).

DDoS Attacks Seen as an Escalating Game of "Hot Potato"

Prolexic (*www.prolexic.com*), the world's largest Distributed Denial of Service (DDoS) mitigation provider, has information from the front lines in the war between data carriers and DDoS attackers:

Prolexic successfully mitigated another major DDoS attack of unprecedented size in terms of packet-per-second volume. Prolexic cautions that global organizations should consider the attack an early warning of the escalating magnitude of similar DDoS threats that are likely to become more prevalent in the next six to eight months.

Overwhelmed by the deluge of Internet traffic, carriers try to cope by passing around the excessive traffic like a "hot potato" from one to another. Ultimately, the carriers must "black hole" the IP address of the attack target and in doing so they unwittingly help the hacker to achieve the goal of creating a "zero route" which crashes the victim's site. In addition, the continuous shifting of traffic from carrier to carrier can seriously affect the performance of multiple Web sites, not just the intended target.

The attack was directed against an Asian company in a high-risk e-commerce industry. It generated larger than usual TCP SYN Floods and ICMP Floods, both of which are common DDoS attack methods. There was nothing common, however, about the magnitude of the attack.

According to Paul Sop, chief technology officer at Prolexic, the volume reached levels of approximately 25 million packets per second, a rate that can overwhelm the routers and DDoS mitigation appliances of an ISP or major carrier. In contrast, most high-end border routers can forward 70,000 packets per second in typical deployments. In addition, Prolexic's security experts found 176,000 remotely controlled PCs, or bots, in the attacker's botnet (robot network). This represents a significant threat as typically only 5,000-10,000 bots have been employed in the five previous attacks mitigated by Prolexic.

To mitigate this high-magnitude attack, Prolexic distributed traffic among several of its global Tier 1 carrier partners and scrubbing network centers. Prolexic was able to help the client maintain service availability throughout the duration of the attack. While Prolexic was fighting this particular threat, it simultaneously helped another client who was experiencing a 7Gbps DDoS attack.

"Prolexic sees this massive attack in Asia with millions of packets per second as an early warning beacon of the increasing magnitude of DDoS attacks that may be on the horizon for Europe and North America in the next 6 to 8 months," Sop said. "High risk clients, such as those extremely large companies in the gaming and gambling industries in Asia, are usually the first targets of these huge botnets just to see how successful they can be."

Prolexic cautions that the next quantum leap in DDoS attacks will not necessarily center on bandwidth, but rather on increasing the volume of packets per second to such a high level that carriers cannot handle the overload. According to Sop, these extremely high packet-per-second DDoS attacks are especially insidious because they can cause collateral damage to carriers long before the "bad traffic" ever reaches its intended target.

"Prolexic has invested millions to be ready for this type of DDoS attack and while we have only seen this botnet once in the Western Hemisphere to date, it is likely to follow a common pattern and become much more prevalent," Sop said.

Dead Block for Xbox 360

Dead Block (*deadblock.com*), the newest survival game on the street, puts an interesting spin on the zombie genre. You take on the role of one of four characters fighting for survival from the zombie invasion either solo or co-op.

The characters are quite comical, each comes with a unique style of gameplay from the construction worker with a nail gun that can weaken or freeze enemies to the boy scout who can throw a burger to distract zombies. Each character makes the game a little different.

The goals of Dead Block are simple: either kill a set number of zombies all on your own, or scavenge for various parts of your guitar/weapon and jam out to destroy them.

Instead of running around with an M16 and shredding zombies at will, Dead Block removes all forms of ranged weapons and forces you to rely on tactics. Your main weapons in this game are the various traps you can set up. You are provided with a melee weapon but it is pretty much useless without combining it with traps.

Zombies come through windows and doorways and you have the option to either board up where they enter or place traps to help you destroy them. The traps range from a freezer that turns zombies into ice so that one hit finishes them off; to a cardboard box trap, which places a box on a zombies head and confuses them into attacking other zombies. To build traps or board windows you have to scavenge through endless boxes to find the wood and bolts to create them.

While scavenging you may also come across an upgrade for your melee weapon, so searching through boxes is essential to the game.

While Dead Block made for a great time playing co-op with friends, the solo mode didn't prove to be a lot of fun. Searching through boxes quickly becomes very repetitive and diminishes gameplay. And doing so is the only way to finish levels. Even with friends, the repetitiveness may get to you.

Dead Block is available for Xbox 360 for 800 Microsoft Points or roughly $10.

Review contributed by Jeremy Halligan

In addition to being an editor and columnist for *ComputorEdge* 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*.

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"Computer and Internet tips, plus comments on the articles and columns." by ComputorEdge Staff

"EPUB Education," "Hardwired (Connection to) Router," "Updates, from Microsoft or Others," "iWOW 3D for Zune"

EPUB Education

[Regarding the July 15 Digital Dave column:]

Last Spring, San Diego Continuing Education (*www.sdce.edu*) offered a one day Saturday class, a guest speaker in Randall Cornish's InDesign class, that covered EPUB and how to start with InDesign and then convert. I wouldn't be surprised if this class were offered again in the Fall since it was well attended and excellent information was presented.

SDCE is a wonderful San Diego jewel in that the classes are free with excellent instructors and the North City campus, off of Aero Drive, has a new building being built that will most likely have some of the newer technology built in.

-Susan Fisher McClure, San Diego, CA

Hardwired (Connection to) Router

[Regarding the July 22 Digital Dave column:]

The response said "One gigabit direct connect routers are common place, whereas the common accompanying Wi-Fi are limited to a max of 600 megabits." Here, we're talking about a "gigabit" Wi-Fi router—meaning it has a built-in gigabit Ethernet wired switch—not that it can do gigabit wirelessly. A bit misleading, eh?

The Wi-Fi bit rate speeds, like 600 megabits, are far faster than the "net yield," after all the Wi-Fi overhead. These Wi-Fi speeds are the raw bit rate on the air, where many of the bits are overhead, error correction, etc. The net yield is more often 60% of the air link bit rate, and this assumes no time delays waiting for "clear air" (i.e., no other transmissions nearby or at neighbors').

That 600Mbps is the double-channel (40MHz) mode in Wi-Fi's 802.11n, and it's an option in client (PCs, other) devices and in routers. And the high speeds, beyond 54Mbps (before the 60% penalty), require an ideal signal strength in ***both*** directions. Too often people look only at the signal strength ***from*** the router as you do on your cell phone. This doesn't carry for Wi-Fi where the data rates and channel widths are the same in both directions.

The overhead on Ethernet with TCP/IP is more like 10-15%.

Hope this helps. There's a lot of misleading marketing hype in Wi-Fi.

-Steve, Sandy Eggo

Updates, from Microsoft or Others

[Regarding the July 15 Digital Dave column:]

Dear DD, thanks for being there,

I have learned to use extreme caution regarding installing updates from software and hardware companies that want to "improve my computing experience." First off, I don't use the automatic updates settings offered, usually hidden somewhere in the settings or options menu, when I install new software or re-install a newer version of a piece of software. And hardware driver updates can be a big headache especially in a high end PC system.

The old Farmer/Mechanic saying of "If it ain't broke, don't fix it" is very applicable here. I never leave the, "automatically check for updates" option box checked for software and if the hardware in my system is working fine for my purposes then I decline any driver updates.

I recently broke my rule and accepted an update for my ATI GPU (graphics processing unit). I lost the ability to watch any kind of video on my expensive and finely tuned media center PC. It took two weeks and countless hours of hair pulling before I remembered the GPU driver update, "that would improve my video experience", which the MS update (people?) offered to me, (I did a restore to a point a day or two before the *&&$# update). Bah Humbug, Beware MS Geeks offering gifts.

The moral of this story is, "Don't covet the latest and greatest unless it's broken (Blue Screen of Death) or you need faster and better for your hobby or business," or you're just plain bored and need a challenge in your life.

-Buck, El Cajon, CA

iWOW 3D for Zune

[Regarding the July 22 Worldwide News & Product Reviews column:]

I do not have an iPod, iPad, etc. I have a Zune and the connection looks very similar to the Zune connection. Would the iWOW be compatible with the Zune?

Thank you,

-Lynne, Magnolia, Texas

Hi, Lynne,

No, to my knowledge, iWOW 3D is made specifically for the 30-pin connector on Apple's iDevices.

*SRS Labs (*www.srslabs.com/store/store/comersus_index.asp*)*

-Barry Fass-Holmes, San Diego, CA

About the question regarding it's use on a Zune, ***no***, it won't work. This is from the IWOW Web site.

"SYSTEM REQUIREMENTS

• IPhone, iPad, iPad II or iPod (featuring a 30-pin Apple connector)"

-Buck, El Cajon, CA

ComputorEdge 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 ComputorEdge.com (*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 "ComputorQuick Review", or yell at us, please e-mail us at *ceeditor@computoredge.com*.

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