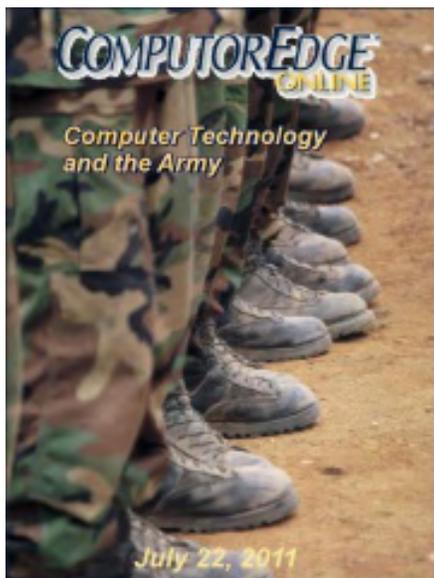


# ComputerEdge™ Online — 07/22/11



## This issue: Computer Technology and the Army

High-tech is embedded in virtually every aspect of the military.

### Table of Contents:

#### [Digital Dave](#) by *Digital Dave*

Digital Dave answers your tech questions. Click on an Address and It Disappears; Hard Wiring to Routers; Security Settings for Downloading.

#### [How Are Computers Changing the Face of Ground Wars?](#) by

Marilyn K. Martin

Computers and the Military  
The Pentagon and military contractors are experimenting with creating military use computerized systems. These systems range from "smart" battlefield uniforms to computerized prosthetics—all leading to the ability to fight more effectively.

#### [Wally Wang's Apple Farm](#) by Wally Wang

Bye, Bye Borders  
The struggle of printed books; PC sales decline, Mac sales continue increasing; reasons to use Mac OS X 10.7 Lion; the curious way to compete against Apple; more patent issues for Android; using iWork on the iPhone; minimizing windows.

#### [Linux Lessons: Tips and Tricks from Users](#) by Tony J. Podrasky

.logout contains a list of "things to do" when you close an xsession.  
You can use .logout to save all the commands you typed in your previous sessions.

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(Click Banner)

[Worldwide News & Product Reviews](#) by Charles Carr

The latest in tech news and hot product reviews.  
Hackers Set Sights on Government; Make Your Staycation a Walk in the Park; Put Yourself on a Wireless Leash; Ear Candy for iDevice Users.

DEPARTMENTS:

[Editor's Letters: Tips and Thoughts from Readers](#) by

ComputerEdge Staff

Computer and Internet tips, plus comments on the articles and columns.  
"Forward Looking," "Scrolling Problem," "The Cloud Will Hurt Computer Sales?"



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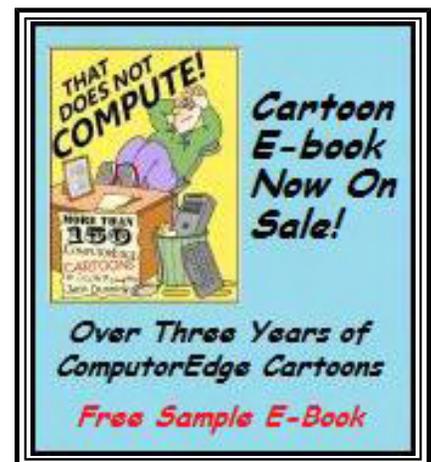
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[Return to Table of Contents](#)



## Digital Dave

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

Click on an Address and It Disappears; Hard Wiring to Routers; Security Settings for Downloading.

*Dear Digital Dave,*

*When I click on a Web address in the list from the Web address area it disappears. It is a hit or miss thing. Sometimes I think I don't depress the left mouse button hard enough or I depress too lightly and my Web address disappears. I then have to re-type the address again.*

*Cheryl  
San Diego, CA*

Dear Cheryl,

That is certainly strange behavior. It's not likely to be related to how you click your mouse. Generally, a click is a click. How hard or light you click shouldn't matter—unless your mouse is faulty. Since things do randomly work for you, it is possible that your mouse is sending erroneous signals. Also, although probably not the problem, check your aim. You could be clicking and missing.

It sounds like you are using auto-completion (or predictive text) to select Web sites you have previously visited. Usually when you select from the pop-up list you are directed to the site with the address remaining in the address field. Auto-completion is a function of the browser that you're using. You can turn it on and off in the Internet Options of the Internet Explorer Tools menu under the Content tab. In Firefox, the Tools => Options window offers settings under Privacy => Location Bar. Google Chrome has the option to use a prediction service to complete searches which can be activated via Tools (the little wrench icon in the upper right-hand corner) => Under the Hood. I would try stopping and restarting the feature in whichever browser you're using, restarting the computer in between. (I've also found that at times when things start acting funky, a simple reboot can restore things to normal.) Make sure that your browser software is up-to-date.

It also possible that there is an add-on, plug-in, or toolbar (such as Google Toolbar) which is interfering with the auto-completion feature. You could try disabling add-ons to see if one of them may be interfering. If the problem clears up, enable the add-ons one at a time until you find the culprit. In Internet Explorer, use the Programs tab in the Internet Options window and click Manage Add-ons. In Firefox, find Plugins and Extensions by selecting Add-ons from the Tools menu. In Chrome, access Extensions via "Customize and control Google Chrome" (the wrench icon) => Tools => Extensions. (In both Internet Explorer and Firefox, if you don't see the Tools menu or the associated menu bar (File | Edit | View | Favorites | Tools | Help), hit the ALT key once and the menu bar will temporarily appear.)

Failing the above, I would switch to another browser. Many hours (or days) can be spent on a niggling problem which

can be resolved by changing the software we use. From my personal experience, Google Chrome has been the most consistent Web browser, although there are still some Web sites which will only support Internet Explorer. I keep them all ready to go on my computers.

Digital Dave

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*Dear Digital Dave,*

*I was wondering about wired routers. I have a wireless router for which I turned off the wireless part, since I have wired the house and a hub in the living room. Is there a difference in the wired part of the new routers that help speed, make for better communication between machines, or have better safeguards in the routers.*

*Thank you for your help.*

*Steve  
San Diego*

Dear Steve,

The answer is "Yes!"—all three. A direct connection through a wired network to your router will give you more speed (bandwidth), more reliable communications and more security than that of a wireless (Wi-Fi) connection.

It would be rare to find a router which doesn't offer greater bandwidth through its wire Ethernet connections than the coexisting Wi-Fi. One gigabit direct connect routers are common place, whereas the common accompanying Wi-Fi are limited to a max of 600 megabits. However, if your primary usage for the network is to share an Internet connection, your bottleneck will be the Internet which will be significantly slower than either the Ethernet or Wi-Fi connections. You will see the greatest speed benefit within your internal network when transferring data between equipment on the network. Also, to see the optimum benefit of higher direct connection speeds over that of wireless, the cable in the network needs to be rated high enough to support the broader bandwidths. CAT6 cable is pretty much standard now.

While hardwired cable is inherently more reliable and less subject to interference than wireless connections, in most situations, it will be difficult to notice the difference. Wireless loses quality at longer ranges, but running long network cable lengths can present physical problems. You are more likely to occasionally lose a Wi-Fi connection (at the router, the computer, or through interference), than an Ethernet cable connection.

Since a wireless network is broadcast through the air, it presents more security issues than a hardwired network. Anyone within range can pick up the signal and potentially tap into the network. Some people look for unsecured (no password required) wireless networks to borrow Internet connections. Certain wireless protocols are more secure than others (WPA2 is better than WPA, which is better than WEP). Hardwired networks are very difficult to intercept without physically tapping into the cable. However, the wireless security WPA2 is good enough for most uses and should suffice.

The biggest advantage to wireless is that it's easy to install throughout a house or business—no cable runs are required. Yet, if I had only one or two computers which I used in the same room as the router, then I would probably directly connect. Also, streaming video to lots of devices (DVD players, TVs, etc) is becoming one of the biggest uses for Wi-Fi. Without Wi-Fi that would rapidly increase the amount of hard wiring required for any household. Do you often have visitors who might use your Internet connection (laptops, tablets, e-book readers)? Activate the Wi-Fi.

Digital Dave

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*Dear Digital Dave,*

*I want to download this game, but I keep getting a message that my security settings will not let me download. I have lowered my settings and still get this message. I have attempted to change the settings in Internet Options under Security and Privacy, but I am unsuccessful.*

*What am I doing wrong? I wanted to find a site that tells you what your security settings should be before you download and what they should be when downloading. I am a novice at computers, but am willing to learn.*

*Thanks!*

*Cheryl  
San Diego, CA*

Dear Cheryl,

Before giving you things to try, be sure the game isn't actually malware disguised as a game and the antivirus detected it. This is very common. Can you download and run anything else? Generally it's not a great idea to lower security settings (as mentioned below) to run something off the Internet unless you're really sure it's legitimate.

When downloading problems occur, they can be some of the most difficult to diagnose because there are so many possible causes. We first look to our browser.

This downloading problem has commonly occurred in Internet Explorer. Many people use other browsers such as Firefox or Google Chrome to avoid common problems with Internet Explorer—although there are times when only IE will work. This is why I keep most browsers installed and available for use.

None of this will do you any good unless the other browsers are already installed on your computer since, at this point, you cannot download. You first need to get your current browser running and downloading, which I must assume is IE.

Many people have found that resetting to the defaults will get them downloading again, but rather than adjusting individual items, all the Internet Explorer settings can be reset at once. Open Internet Option from the Tools menu in Internet Explorer. (When using Windows 7 or Vista, you don't need to load Internet Explorer first. Internet Properties window can be opened directly from the Start Menu by typing "internet" into the Start Search field and selecting Internet Options from the menu. In Windows XP, right-click on the IE logo and select Properties.) Select the Advanced tab and click "Reset...", then Reset in the new window.

No luck? Make sure you are logged on to Windows as Administrator, or right-click the IE icon and "Run as administrator."

If this does not work, then you might try temporarily turning off you security software. You can find these setting in the Security Center (System and Security in Windows 7) in the Control Panel. You may also try temporarily disabling User Account Control ([windows.microsoft.com/en-US/windows-vista/What-is-User-Account-Control](http://windows.microsoft.com/en-US/windows-vista/What-is-User-Account-Control)).

We are only starting to scratch the surface. If downloading only recently became a problem, then restoring your

system to an earlier point (System Restore) may solve your problem.

If you are already using Firefox, MozillaZine offers a series of steps to resolve download problems ([kb.mozillazine.org/Unable\\_to\\_save\\_or\\_download\\_files](http://kb.mozillazine.org/Unable_to_save_or_download_files)) in Firefox. Many of these steps will apply to any other browser or system.

Digital Dave

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[Return to Table of Contents](#)



## How Are Computers Changing the Face of Ground Wars?

“Computers and the Military” by Marilyn K. Martin

The Pentagon and military contractors are experimenting with creating military use computerized systems. These systems range from "smart" battlefield uniforms to computerized prosthetics—all leading to the ability to fight more effectively.

As electronic technology advances, the Pentagon and military contractors are experimenting with creating military use computerized systems. Ideally, these will make the ground soldier (and his hardware) more effective, and keep him better protected. (I have not included any air, space or orbital military applications, but may write about those in a future article.)

*(Note: There seems to be some confusion over whether certain U.S. military programs are currently running, have been canceled, or have been revived in a new format. So I have deliberately linked to some outdated articles. Mainly because the ideas are innovative, and may one day be picked up by new military programs or contractors.)*

### "Smart" Battlefield Uniforms

Military uniforms with sensors are on the horizon. As well as military smart uniforms that have integrated weaponry. The U.S. Army recently selected a new and better camouflage pattern for their uniforms. Designed and patented by Crye Precision ([www.cryeprecision.com](http://www.cryeprecision.com)), this MultiCam pattern is designed to blend in with and reflect some of the surrounding colors in Nature, or "to deceive the human eye and brain into accepting the concealed object as part of the background."



The U.S. Army is also supposedly working on a long-term project called "Soldier 2025 ([www.natick.army.mil/about/pao/pubs/warrior/00/janfeb/future\\_warfighter.htm](http://www.natick.army.mil/about/pao/pubs/warrior/00/janfeb/future_warfighter.htm))", that envisions and invents



technologies that will enhance and better protect future ground soldiers. The U.S. Army Soldier Systems Center ([www.natick.army.mil/about](http://www.natick.army.mil/about)), consists of scientists and engineers who anticipate that a future ground soldier will "don a multifunctional uniform constructed from smart, interactive textiles and other materials."

They envision a future smart uniform that "will be able to sense the warrior's surroundings and change color to blend in with the environment, or detect and repel

chemical agents." The uniform could also act as a "data-bus," passing data and information from a wrist-mounted weapon to a helmet-mounted display.

The Army is also exploring improved materials on the atomic or molecular scale, that will offer better ballistic protection for the soldier. One idea is for "liquid armor," or material treated with a shear thickening fluid. It will act like chainmail and prevent serious injury from a bullet's impact. Another idea is for an osmotic skin patch which could deliver nutrients to soldiers when food (or the time/place to consume it) isn't available.

These smart uniforms might also eventually possess micro-climate subsystems to keep the soldier warm in the cold, and cool in a hot environment. They could also have an embedded "physiological status monitoring system", to keep track of the soldier's physical health. The data could be transmitted to medics or unit commanders, to watch out for dehydration and other potentially serious medical conditions.

### "Smart" Helmets and Gloves

A future visored combat helmet could better protect the soldier's head and face, and be computerized with built-in communications. It could transmit and receive information from other soldiers, command, remote sensors or even unmanned aerial vehicles performing reconnaissance.



**"If we're the latest in military technology, how come we get all the dirty jobs?"**

RallyPoint ([www.rallypoint.info/docs/hcid.pdf](http://www.rallypoint.info/docs/hcid.pdf)) makes a Handwear Computer Input Device (HCID) that is a sensor embedded glove. (It isn't under contract to any military branch as best I could tell, but it is an example of wearable military clothing with sensors.)

This glove is capable of recognizing the user's silent hand gestures, as well as "direct hands-on-weapon input actions, and relaying them to an interfaced electronic device. This device could be a wearable computer, two-way radio or robotic control unit." The view-mode from the glove can be a helmet-mounted display. Or the soldier can input commands into his computer through no-touch "intuitive hand-arm gestures."

### Exoskeletons

Another recent development for the ground soldier, who is increasingly expected to carry more and heavier gear into a combat zone, are exoskeletons. These are exterior frameworks, mainly for the legs, usually with a hydraulic "lift" capacity.



Lockheed Martin ([nextbigfuture.com/2011/07/lockheed-martins-hulc-robotic.html](http://nextbigfuture.com/2011/07/lockheed-martins-hulc-robotic.html)) makes a HULCTM Exoskeleton that is "an un-tethered, battery powered, hydraulic-actuated anthropomorphic exoskeleton, that provides (soldiers) the ability to carry loads up to 200 pounds for up to 20 kilometers on a single battery charge, over all kinds of terrain."

This HULCTM Exoskeleton is already undergoing biomedical testing at the Army's Natick Center. These tests will evaluate how quickly the soldier acclimates to the new system, will measure changes in the soldier's energy expenditure, and determine whether there is a reduction in metabolic cost. Testing will also determine "if there is an improvement in metabolic efficiency as measured by oxygen consumption."

### Ground Combat Robots

The Applied Physics Laboratory ([www.jhuapl.edu](http://www.jhuapl.edu)) at Johns Hopkins University is working on a new project for a robotic Next Generation Bomb Hunter ([www.jhuapl.edu/ourwork/biomed/robot.asp](http://www.jhuapl.edu/ourwork/biomed/robot.asp)). Explosive Ordnance Disposal (EOD) robots have completed at least 25,000 missions, with only 30 human fatalities. These impressive, life-saving numbers find the commanders of Army, Navy and Air Force explosives disposal teams in Iraq, calling for "improvements" in EOD robots.

APL's Next Gen bomb-bot is called Sally. The system provides for distant controllers to slide their hands/arms into sleeves and gloves with sensors, to control the robot's movements as it

approaches and defuses a bomb. This EOD robot is basically a torso with two arms on a wheeled platform, that can be steered by a video game type controller, a joystick, or a foot-controlled pressure sensor worn in the operator's shoes. Sally's "head" consists of a tracking and visualization system, that can stream stereoscopic "views" directly to a controller's visor-like cap.

The National Defense Industry Association ([www.ndia.org/Pages/default.aspx](http://www.ndia.org/Pages/default.aspx)) holds yearly conferences in "Ground Robotics Capabilities." Their March 2011 Conference offered the theme "Saving Lives, Saving \$—Are Robot Recruits the Answer?" Their Introduction states "Robot evolution is at an important crossroads: Developers need a better appreciation for 'mission relation,' and operators want to better understand the technology. (This Conference will) address this increased responsiveness to user needs."

Related articles about ground combat robots can be found in the National Defense Magazine ([www.nationaldefensemagazine.org/Pages/default.aspx](http://www.nationaldefensemagazine.org/Pages/default.aspx)). They have published articles on everything from "Killer Drones That Can Fit in Rucksacks," to "Swarming Robot Teams to Map, Survey Buildings" (although the most current list of articles were mainly about the Pentagon Budget Crunch and change of leadership).

## Computerized Small Arms Weaponry

According to Wikipedia, the XM-29 OICW Program ([en.wikipedia.org/wiki/XM-29](http://en.wikipedia.org/wiki/XM-29)) (Objective Individual Combat Weapon) involved a series of hand weapon prototypes, looking for an improved type of combat rifle, which started in the 1990s. Various problems ended the program (as it was originally envisioned) in 2005.



Despite the OICW program's cancellation, an April 2011 video on New Web Gadgets ([thenextweb.com/gadgets/2011/04/06/us-army-shows-off-its-new-smart-weapons-on-video-sharing-sites/](http://thenextweb.com/gadgets/2011/04/06/us-army-shows-off-its-new-smart-weapons-on-video-sharing-sites/)) shows off the XM-25 OICW, which continues in development.

This XM-25 is a Computerized Smartgun, which can supposedly be loaded with a variety of 25mm projectiles, "that can cause damage in all sorts of interesting ways." This semi-automatic can also work with a variety of different ammo, like "rubber slugs for riot control, door-breaching shells and stun bombs."

The manufacturer, ATK ([www.atk.com/Capabilities/c\\_defense\\_default.asp](http://www.atk.com/Capabilities/c_defense_default.asp)) claims that the "airburst weapons system used in the XM-25 provides the soldier with a 300% to 500% increase in hit probability on targets out to 500 meters." Called an Individual Airburst Weapon System (IAWS) it is "designed for effectiveness against enemies protected by walls, dug into foxholes, or hidden in hard-to-reach places."

## Computerized Large Ground Weaponry

The Abrams Tank, manufactured by General Dynamics Land Systems ([www.gdls.com](http://www.gdls.com)) is the U.S. Army's "Main Battle Tank ([www.army-technology.com/projects/abrams/](http://www.army-technology.com/projects/abrams/))". The M1A1 was produced in 1985, and the M1A2 was the 1986 upgrade. The Army canceled production of the M1A2 tank, but continued ordering crucial upgrades for their existing tank fleet.

In February 2001, GDLS was contracted to supply M1A2 tanks with a System Enhancement Package (SEP) by 2004. This package contained "an embedded version of the Army's Force XXI command and control architecture. Also the new Raytheon commander's independent thermal viewer ([www.raytheon.com/capabilities/products/civ/](http://www.raytheon.com/capabilities/products/civ/)) with second-generation thermal imager. A commander's display for digital color terrain maps. And DRS Technologies' second-generation thermal imaging gunner's sight ([www.drs.com/Products/RSTA/GENIITIS.aspx](http://www.drs.com/Products/RSTA/GENIITIS.aspx)) with

increased range. Also a driver's integrated display and thermal management system."

In August 2006, GDLS was contracted to produce 505 Tank Urban Survivability Kits (TUSK). And in March 2010, GDLS was awarded \$37 million to supply Abrams Tank Systems Technical Support ([www.gdls.com/sra/167-general-dynamics-awarded-37-million-for-abrams-tank-system-technical-support](http://www.gdls.com/sra/167-general-dynamics-awarded-37-million-for-abrams-tank-system-technical-support)).

Rumors continue to fly that there is an Abrams M1A3 tank in development. Photos were snapped of a possible prototype ([defensetech.org/2011/01/27/name-that-mystery-tank/](http://defensetech.org/2011/01/27/name-that-mystery-tank/)) being transported on a train in 2010.

GDLS also produces the Stryker armored combat vehicles and RG-31 MRAP (Mine Resistant Ambush Protected) vehicles. And continues to get contracts for upgrade packages for these ground combat vehicles as well.

## Military Cyber-Crimes: Wireless Attacks

A June 2011 article ([www.nationaldefensemagazine.org/blog/Lists/Posts/Post.aspx?ID=438](http://www.nationaldefensemagazine.org/blog/Lists/Posts/Post.aspx?ID=438)) in the National Defense Magazine warns that "Hundreds Of New Cyber Weapons Could Be Aimed at U.S. Military Smartphones." It discusses how "the Defense Department is searching for advanced encryption technologies and other data-protection systems, to protect the growing number of smartphones and tablet computers being used by the U.S. government and military personnel around the world."

"Wireless attacks will explode this year," asserts Tom Kellermann of AirPatrol Corp ([www.airpatrolcorp.com/](http://www.airpatrolcorp.com/)), a firm that specializes in information technology and wireless security systems. He stated that a recent Data Breach Study concluded that "the attack pathway of choice is now via remote access accounts, including those in mobile devices."

He goes on to explain that cyber-criminals are also figuring out ways to infiltrate smartphones and handheld computers, and using them as "beachheads" from which to attack another target. And hacker conferences are increasingly focusing on how to hack mobile operating systems and info-tech gadgets.

"We know that once the blueprint for that kind of hack-attack is introduced at these hacker conferences, people could retrofit their weapons around that capability," said Kellerman. Adding that there are already "600 known variants of attacks (that) exist for mobile devices specifically."

## Military Cyber Crimes: Better Security

"Identity Trust" is the missing component in cyber-security, according to Alex Carter of Daon ([daon.com/](http://daon.com/)), a biometric identity management company. Requiring soldiers to submit personal identification, such as fingerprints or facial scans, can verify their identities before being permitted to access defense networks via mobile devices, he stated.

Private sector companies making headway with Mobile Device Security Management includes Sophos ([www.sophos.com/en-us/products/endpoint/computer-security.aspx](http://www.sophos.com/en-us/products/endpoint/computer-security.aspx)). A May 2011 article ([www.eweek.com/c/a/Security/Sophos-Takes-on-Enterprise-Mobile-Device-Security-Management-265533/](http://www.eweek.com/c/a/Security/Sophos-Takes-on-Enterprise-Mobile-Device-Security-Management-265533/)), discusses Sophos' "enhanced security portfolio," which can now provide complete protection for all endpoints (including mobile devices), desktops and laptops, regardless of where the user is.

Wave Systems Corp. ([www.wave.com/](http://www.wave.com/)) has a white paper available, titled "Network Security: How To Defend An Infinitely Expanding Frontier ([www.wave.com/collateral/03-000273\\_TPM-SED\\_whitepaper.pdf](http://www.wave.com/collateral/03-000273_TPM-SED_whitepaper.pdf))." It discusses a "powerful, cost-effective and simple solution ... to secure scattered end-points of today's mobile networks."

This solution "is built on three widely available, proven—but poorly understood—technologies: Trusted Platform Modules, Self-Encrypting Hard Drives and Centralized/remote Security Management."

## Computerized Combat Casualty Care

The U.S. Army's Walter Reed Institute of Research ([wrair-www.army.mil/index.php?view=combatCasualtyCare](http://wrair-www.army.mil/index.php?view=combatCasualtyCare)) realized that Army medics in combat zones are still "using equipment that is almost unchanged since World War II." So they set out to focus their efforts on combat casualty care, with more technologically advanced devices.

Specifically, they are developing five inter-related computerized devices. These will form a system to allow medics to provide quality care (especially within the crucial first hour after injury), to help reduce the mortality rate of wounded soldiers.

When deployed, this computerized system will enable a medic to 1) Quickly locate a wounded soldier; 2) Monitor the soldier's vital signs and detailed physiologic information, and display them locally or remotely on a computer readout; 3) Get advice from a medical database on the best treatment, with step-by-step instructions; 4) Use computer-regulated intravenous pumps and ventilators to tailor resuscitation to the needs of the individual casualty; and 5) Evacuate the soldier in an enclosed stretcher, that provides continuous medical support and monitoring in transit.

Walter Reed is also working with dental researchers, to improve maxillo-facial care following traumatic injury. These researchers have developed a hand-held, portable, battery-powered X-ray unit, with a computer radiographic capability. So now facial/dental X-rays can be made without film on a combat field, exposing the casualty to less radiation than conventional X-ray machines. These battlefield X-rays can also be remotely transmitted to specialists for diagnoses and treatment plans.

## Computerized Prosthetics

The Department of Defense's DARPA (Defense Advanced Research Projects Agency) awarded Deka Research and Development ([www.dekaresearch.com/deka\\_arm.shtml](http://www.dekaresearch.com/deka_arm.shtml)) an \$18.1 million contract in 2007.



DARPA asked them to research the best technologies available, and then design and fabricate an advanced prosthetic arm and hand which can be neurally-controlled. Deka now has a robotic arm program call the Luke Project, after the "Star Wars" character who had his hand sliced off by a light saber, and then replaced with an identical, functioning hand.

Deka is working closely with the medical researchers at the Rehabilitation Institute of Chicago ([www.ric.org](http://www.ric.org)), which has been continuously the #1 ranked Rehabilitation Hospital, by the U.S. News & World Report. They have successfully developed and surgically attached thought-controlled ([www.neurotechreports.com/pages/darpaprosthetics.html](http://www.neurotechreports.com/pages/darpaprosthetics.html)) prosthetic arms and hands.

DARPA also awarded a \$30.4 million contract for Revolutionizing Prosthetics 2009, to the Applied Physics Laboratory ([www.jhuapl.edu](http://www.jhuapl.edu)) of Johns Hopkins University. This AP Lab has since had success rewiring Nintendo's "Guitar Hero III" game, to allow amputees to rock out with the game ([www.jhuapl.edu/ourwork/biomed/guitar.asp](http://www.jhuapl.edu/ourwork/biomed/guitar.asp)), while getting valuable training with prosthetic prototypes at the same time.

DARPA is also working with the U.S. Army on prosthetic arms that can restore an amputee to once again feeling and acting as a "bi-lateral." The Pentagon Channel has uploaded a May 2010, 10-minute video ([www.youtube.com/watch?v=l-gbhhKwoaI](http://www.youtube.com/watch?v=l-gbhhKwoaI)) to You Tube. In it, they explain how they are challenging prosthetic makers to create an arm so refined that its fingers can pick up a raisin off of a table.

So computers and related electronic systems are making a huge impact on our ground military's ability to fight more effectively. And for our soldiers' to better survive, with better Quality of Life for the seriously injured. Future warfare will undoubtedly follow these early computerized footsteps.

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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](http://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](http://www.teensreadtoo.com/ReptilianRebirth.html)), and are available from most on-line bookstores.

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[Return to Table of Contents](#)



## Wally Wang's Apple Farm

### “Bye, Bye Borders” by Wally Wang

The struggle of printed books; PC sales decline, Mac sales continue increasing; reasons to use Mac OS X 10.7 Lion; the curious way to compete against Apple; more patent issues for Android; using iWork on the iPhone; minimizing windows.

# Wally Wang's Apple Farm

A few weeks ago, a private-equity investor made a bid to buy Borders Bookstores ([finance.yahoo.com/news/Borders-deal-with-Najafi-apf-4106042958.html?x=0](http://finance.yahoo.com/news/Borders-deal-with-Najafi-apf-4106042958.html?x=0)), which is like investing in the Titanic right after it plows into the iceberg. The cash infusion from this private-equity investor would have allowed Borders to stay in business, but now this investor has apparently come to their senses and withdrawn their offer although other investors are reportedly interested in buying Borders.

If Borders doesn't get an investor soon, the end result could be the complete liquidation ([www.ibtimes.com/articles/180021/20110714/borders-najafi-u-s-bankruptcy-court-liquidation.htm](http://www.ibtimes.com/articles/180021/20110714/borders-najafi-u-s-bankruptcy-court-liquidation.htm)) of the entire chain. Even if an investor does sink a boatload of cash into Borders, the fundamental question remains. If Borders can't make a profit selling books, does it matter how much someone invests in the company? The basic business model of Borders is broken. If fewer people are reading, let alone buying, printed books, then selling printed books will no longer be profitable.

If Borders goes out of business, how much longer can Barnes & Noble stay in business selling printed books in expensive retail outlets? Eliminate Borders and you eliminate a major source for publishers to sell their printed books, which means book distributors and book publishers will have fewer markets to sell books.

With fewer markets to sell books, publishers will likely print fewer books and fewer copies of the books that they do publish. Making money by selling books is fast becoming obsolete, which kills the business model of book publishers, book distributors and book sellers like Borders.

If there's less and less money selling books, there will also be less and less money writing books. Notice how so many computer book publishers and authors jumped on the bandwagon to publish books about Android devices, thinking that Android was going to become the next dominant operating system like Microsoft Windows.

The problem is that each Android device manufacturer customizes Android, so rather than publishing books about Android, publishers and authors have to focus on specific devices like the Motorola Droid or the Samsung Galaxy Tab. If you write a book about a particular Android device, it can only appeal to a fraction of the total Android market. Then as manufacturers rapidly crank out new models, the book goes out of date within a few months, making it even harder to sell.

With too many Android devices on the market that each require a specific book, the time and effort needed to write, print, distribute and sell a printed book about a particular Android device is an endless treadmill of diminishing returns.

This vicious cycle of writing books about Android devices simply highlights the inefficiency of printed books in general. Each book appeals to too few people, has a short shelf life, and requires constant updating to remain useful. To make money, publishers need to print fewer copies so they won't be stuck with a large inventory of obsolete books. Yet by printing fewer copies, the cost of each book increases, making it even more difficult to sell a limited run of books at a profit within a quickly narrowing window of time.

Now look at the future of e-books. By selling directly to the customer's devices (Kindle, Nook, iPad, etc.), you eliminate the need for people to visit a physical store of a book seller. You don't need a book distributor at all, and you don't necessarily need a publisher since you can create your own e-book.

Create an e-book for a rapidly obsolete topic like a specific Android device, and you have zero storage and distribution costs. When the next Android device appears, it's easy and fast to update the e-book with new information and release it to the public. You can continue to sell an e-book for an old Android device because it doesn't cost you anything for storage or delivery.

Borders is simply the first domino to fall in the printed book publishing model that's evaporating before our eyes. If you want to stay current, focus on e-books. If you want to go bankrupt like Borders, cling to the print world of book publishers, book distributors and book sellers. Sadly, many people will simply choose to stay within the familiar world of printed books and then wake up one day and wonder why they're out of money.

Here's one disturbing statistic about book publishers. One of my books sold 40,000 printed copies, but only 100 e-book copies in that same time frame. As Amazon continues claiming that e-books are selling more than printed books and book stores continue disappearing, it's likely that e-books will become more popular over time.

Yet this particular publisher continues selling e-books that are merely electronic versions of the printed books with no thought to making the e-book versions unique and more appealing. Since they make more money off printed books than from e-books, chances are good they'll continue focusing their time and energy on printed books until it's blatantly obvious that selling e-book versions of printed books is as obsolete as making a movie by simply filming a stage play (which is how early movies were made).

By focusing on creating content for printed books and then converting them into e-books as an afterthought, traditional publishers will wind up peddling mediocre e-book products. On the other hand, if you focus on creating content for e-books first, you'll wind up creating a product that meets the growing expectations of the e-book crowd, which includes interactive books that can change to the user's preferences with audio and video embedded within text and pictures.

Would a horse buggy with a motor added (printed books converted to e-books) be as effective as a sports car built from scratch for maximum performance (content designed for e-books)? As long as traditional publishers see e-books as static duplicates of printed books, they'll miss the potential of the growing e-book market and wind up digging their own grave as a result.

## PC Sales Decline, Mac Sales Continue Increasing

Let's assume that 96 percent of the people in America speak English or Spanish while roughly two percent speak Arabic. With such a large population of English or Spanish speaking people, you'd expect the percentage of people speaking English or Spanish to remain roughly the same at 96 percent. With such a small population of Arabic

speakers, you'd expect the percentage of Arabic speakers to remain near two percent.

Imagine if the number of Arabic speakers suddenly increased from two percent to 10 percent. What could account for so many people wanting to speak Arabic instead of English or Spanish? That's the type of question facing PC manufacturers as they attempt to explain away their second quarter drop in computer sales.

The "logic" behind this drop in PC sales is that the economy is weak and people have less money to spend on computers. Unless, of course, your company happens to be named Toshiba or Apple.

For some reason, Toshiba increased the number of PCs sold while other PC manufacturers sold less. Less surprising is that Apple continues selling more Macs despite the supposedly "weak" economy that's crippling sales of other PC manufacturers. In the first three months of 2011, Apple's U.S. sales rose ([www.usatoday.com/money/industries/technology/2011-07-13-apple-sales-share-grows\\_n.htm](http://www.usatoday.com/money/industries/technology/2011-07-13-apple-sales-share-grows_n.htm)) by \$4.6 billion for an 80 percent increase over a year ago, giving Apple a 10.7 percent share of the market according to IDC and Gartner.

<b>(Units Shipments are in thousands)</b>						
<b>Rank</b>	<b>Vendor</b>	<b>2Q11 Shipments</b>	<b>Market Share</b>	<b>2Q10 Shipments</b>	<b>Market Share</b>	<b>2Q11/2Q10 Growth</b>
1	HP	4,692	26.3%	4,721	25.3%	-0.6%
2	Dell	3,959	22.2%	4,408	23.7%	-10.2%
3	Apple	1,917	10.7%	1,671	9.0%	14.7%
4	Toshiba	1,617	9.1%	1,560	8.4%	3.7%
5	Acer Group	1,513	8.5%	2,028	10.9%	-25.4%
	Others	4,159	23.3%	4,243	22.8%	-2.0%
	All Vendors	17,857	100.0%	18,632	100.0%	-4.2%

Figure 1. Apple and Toshiba see sales increases while everyone else sees declines.

ComputerWorld claims that enterprise customers are driving PC sales while consumers are driving Mac sales ([www.computerworld.com/s/article/9210798/Weak\\_PC\\_sales\\_Is\\_it\\_the\\_economy\\_or\\_Apple\\_](http://www.computerworld.com/s/article/9210798/Weak_PC_sales_Is_it_the_economy_or_Apple_)). What PC manufacturers should be wondering is why are consumers spending more to buy Macs and not saving money by buying less expensive PCs? (What corporations should be wondering is if they should even continue buying Windows PCs or switch to something else that could be more efficient.)

If more Americans start learning to speak Arabic, there has to be a compelling reason. Likewise, if more Americans start buying and using Macs, there must also be a compelling reason. In the case of languages, few Americans have a reason to start using Arabic. However in the world of computers, more Americans are finding a reason to start using a Macintosh.

Mac users already know why they prefer using a Macintosh, which is why the Macintosh market share has steadily grown over the years from two percent of the market to 10 percent. PC users just need to investigate the Macintosh to see if they might find a reason to use one too.

## Reasons to Use Mac OS X 10.7 Lion

If you're a Windows user, here are two objective reasons to switch to Linux or Mac OS X: disk defragmentation and Windows registry problems. The main reason why Windows PCs slow down over time and fail is through disk defragmentation and Windows registry problems. Switch to Linux or Mac OS X and you eliminate both major headaches right away since disk defragmentation is only a problem when you get close to filling up a hard disk and Windows registry problems don't exist at all in Linux or Mac OS X.

Here's one more reason to switch to Mac OS X. Buy a new Windows PC and you have to manually re-install all your programs from your old computer to your new computer. Buy a new Macintosh, hook it up to your old Macintosh, and you can run a program (that comes free with every Macintosh) called Migration Assistant that will automate the process of transferring your data, settings and programs from your old computer to your new computer.

Run Migration Assistant, walk away, and come back an hour later and your new Macintosh works exactly like your old Macintosh with every custom setting in place. For Windows users, Microsoft offers a similar program called Windows Easy Transfer ([windows.microsoft.com/en-US/windows7/products/features/windows-easy-transfer](http://windows.microsoft.com/en-US/windows7/products/features/windows-easy-transfer)), but it can't transfer any programs. In addition, Windows Easy Transfer has problems transferring from a 64-bit version of Windows to a 32-bit version of Windows. The next time you're manually reinstalling all your programs on to a new PC (and fiddling with activation issues with some programs on your new PC), ask yourself if your time could be better spent actually using the computer rather than reinstalling programs (if you can even find the original program DVDs and installation serial codes).

✓ [Can spyware, viruses, or other types of malicious software be transferred?](#)

Yes. If you transfer files containing malicious software from your old computer, that software can be transferred to your new computer. You should run antivirus and spyware protection programs at all times, especially on your old computer, before you select files to transfer. After you've transferred files to your new computer, run those programs on the new computer to make sure that no malicious software was transferred.

✓ [Which versions of Windows will work with Windows Easy Transfer?](#)

You can use Windows Easy Transfer to transfer files and settings from a computer running Windows XP, Windows Vista, or Windows 7 to another computer running Windows 7.

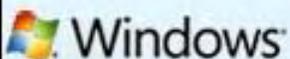
### Note

Windows Easy Transfer can't transfer files from a 64-bit version of Windows to a 32-bit version of Windows. If you're transferring from a 64-bit version of Windows Vista to a 32-bit version of Windows 7, you can move your files manually, or use Backup and Restore in Windows Vista. For more information, see [Back up your files and Restore a backup created on a previous version of Windows](#) on the Windows website. If you're transferring from a 64-bit version of Windows XP, you'll need to move your files manually. For more information about 32-bit and 64-bit versions of Windows, see [32-bit and 64-bit Windows: frequently asked questions](#).

Article ID: MSW700003

Was this helpful?

Yes  No  Somewhat



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Figure 2. Windows Easy Transfer can't transfer from a 64-bit operating system to a 32-bit version.

If you're currently using Mac OS X, here are three reasons to upgrade to Lion. First, there's Auto Save, which automatically saves your data so if your computer crashes or the power goes out, you won't lose your data. By using Auto Save, you won't have to constantly keep choosing the Save command every few minutes.

Second, there's the Resume feature. With Windows and older versions of Mac OS X, you have to shut down all programs when you shut down your computer. Turn on your computer and you have to reopen all the programs you want to use again.

With Resume, Lion lets you shut down your Macintosh without having to close any open windows or shut down any

programs. Turn your Macintosh back on again and all your windows appear in the same location as before you shut down your computer.

While this may seem trivial, the convenience of not having to shut everything down and reload everything over and over again will suddenly make the idea of shutting everything down all the time seem astonishingly obsolete and annoying. After you get used to this Resume feature, the idea of your computer working for you and not you working to meet the needs of the computer will become more apparent, especially when you try using a computer that isn't running Mac OS X 10.7 Lion.

Third, Lion offers Versioning, which lets you revert back to previous versions of a file. Now if you change a file and suddenly want an older version back again, you can view an older file and revert back to it easily without the hassle of learning your particular backup software's idiosyncrasies.

Lion basically makes the Macintosh even easier to use while providing features that free you from the task of working with your computer so you can actually do something more productive rather than babysit a cranky computer and operating system every time you want to use it. If you value your time, then Lion will help you. If you don't value your time, then feel free to stick with older versions of Mac OS X or use another operating system like Windows.

## The Curious Way to Compete Against Apple

Microsoft plans to open 75 more Microsoft Stores ([news.cnet.com/8301-10805\\_3-20079207-75/microsoft-will-open-75-new-stores-within-3-years/](http://news.cnet.com/8301-10805_3-20079207-75/microsoft-will-open-75-new-stores-within-3-years/)) in the next three years, despite the fact that most of the Microsoft Stores aren't making money. As Joe Wilcox ([www.betanews.com/joewilcox/article/Doh-of-course-Microsoft-should-open-lots-more-retail-stores/1302205676](http://www.betanews.com/joewilcox/article/Doh-of-course-Microsoft-should-open-lots-more-retail-stores/1302205676)) at BetaNews says, "Branded Microsoft stores aren't about generating profits. Making money is merely a bonus. The goal should be selling a Microsoft lifestyle and engaging customers."

As with so many of Microsoft's ventures, pouring money down the drain is easy in order to engage the customer, such as all the billions spent developing the Xbox and all the millions wasted on the Zune and Microsoft Kin phones. In most businesses, the goal is to make money where engaging the customer is the bonus, not the other way around.

Microsoft isn't alone in spending money with little hope of return. The San Francisco Chronicle reports that Research in Motion isn't making any money from their Playbook tablet ([www.sfgate.com/cgi-bin/article.cgi?f=/g/a/2011/07/13/businessinsider-rim-isnt-making-any-money-on-the-playbook-2011-7.DTL](http://www.sfgate.com/cgi-bin/article.cgi?f=/g/a/2011/07/13/businessinsider-rim-isnt-making-any-money-on-the-playbook-2011-7.DTL)). Not making money is certainly a curious tactic to compete against rivals. When you can only compete against Apple by not making or even losing money, what does that tell you about your own products? More importantly, why bother paying money to compete when you could just use that money to develop a product that people actually want?

According to the Reynolds Journalism Institute ([rjionline.org/news/rji-dpa-spring-2011-ipad-survey-results](http://rjionline.org/news/rji-dpa-spring-2011-ipad-survey-results)), a large majority of people (69 percent) are happier and more satisfied with their iPads three months after buying it. With most purchases, people's happiness tends to go down over time. (Just think how happy you were with a new car, then compare it to how happy you are with that same car three months later.)

Now if we could only get survey results asking how happy Motorola Xoom, RIM Playbook and HP TouchPad users are three months after buying them, we could see if tablet users are more satisfied over time or if only iPad users are more satisfied over time.

Flurry Analytics is already reporting that more developers are focusing on iOS ([blog.flurry.com/bid/66618/iPad-2-and-Verizon-iPhone-Take-Some-Wind-Out-of-Android-s-Sail](http://blog.flurry.com/bid/66618/iPad-2-and-Verizon-iPhone-Take-Some-Wind-Out-of-Android-s-Sail)) than Android. Some of the reasons given

for the focus on iOS revolves around the introduction of the iPhone on Verizon and the rapid growth of the iPad. While the iPad is a clear hit, Android tablets are still struggling.

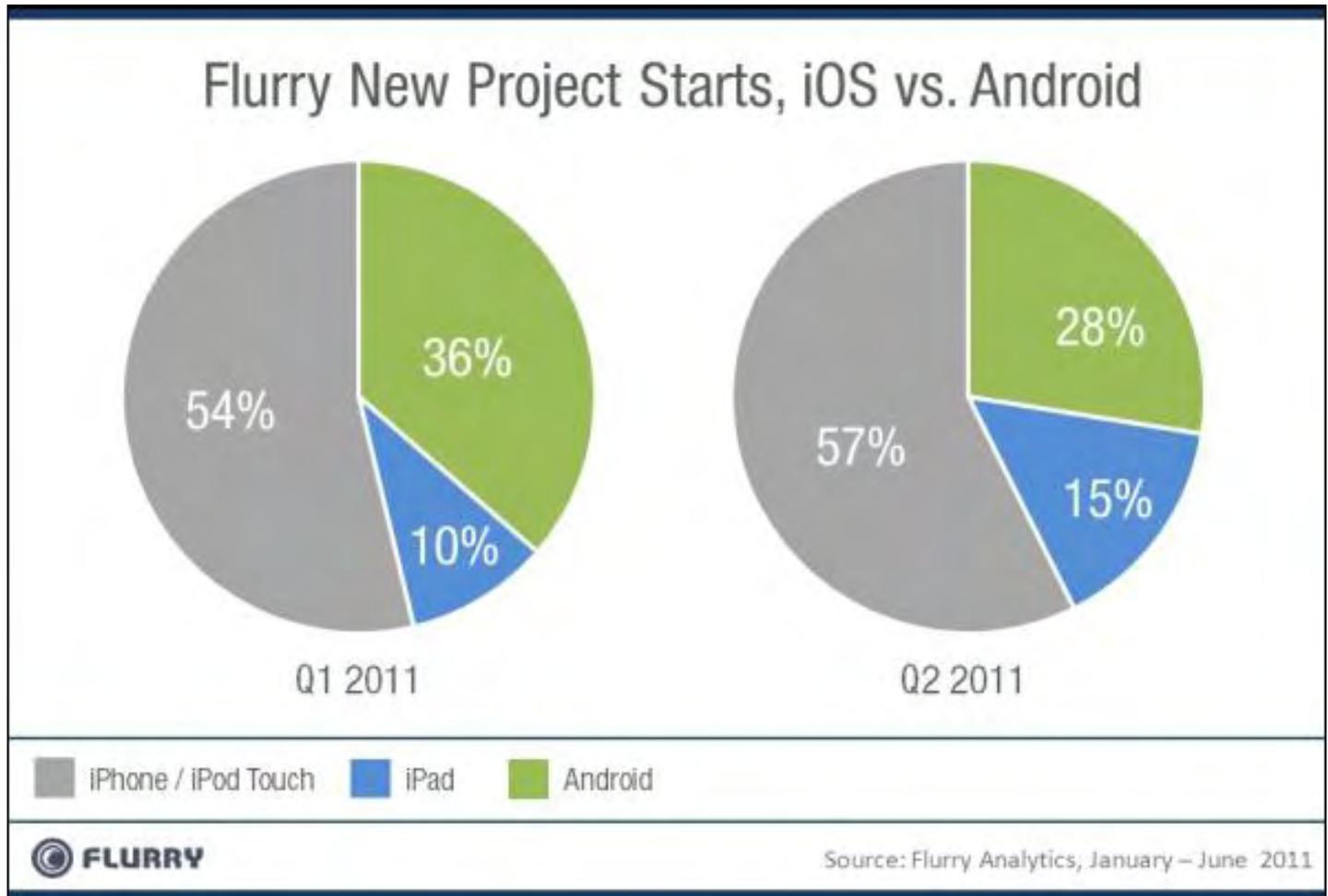


Figure 3. More developers are focusing on iOS over Android.

Toss in Android's fragmentation problem and you can see how the iOS market can be more appealing by offering more potential money while the Android market offers less potential money despite a larger market share.

Nowhere in Flurry Analytics's data do they mention how interested developers may be in creating Blackberry, webOS, or Windows Phone 7 apps. Given their smaller market share, it's probably safe to assume that the majority of developers are focusing on iOS first, Android second and everyone else third.

Even Microsoft's CEO, Steve Ballmer, knows that the secret to promoting any operating system are developers. The more developers you have, the harder it is for rivals to catch up. Given that an army of developers helped establish Windows, it's likely that a similar army of developers can further cement iOS as the dominant mobile operating system of the future.

For developers, there's more money and fewer headaches in iOS than Android. For consumers, there's a greater chance that some apps will arrive on the iPhone first before appearing on Android, if they ever appear on Android at all. If more developers back iOS, Android's app library will always remain behind.

### More Patent Issues for Android

Microsoft is already making money from Android patent issues and Oracle is trying to cash in next. Now Apple is

moving to protect their patents ([allthingsd.com/20110715/itc-rules-htc-violated-two-apple-patents/](http://allthingsd.com/20110715/itc-rules-htc-violated-two-apple-patents/)) against Android as well. As the patent infringement issues keep piling up, the cost of using Android ([www.pcworld.com/article/235876/itc\\_ruling\\_threatens\\_future\\_of\\_android.html](http://www.pcworld.com/article/235876/itc_ruling_threatens_future_of_android.html)) keeps potentially getting higher and higher.

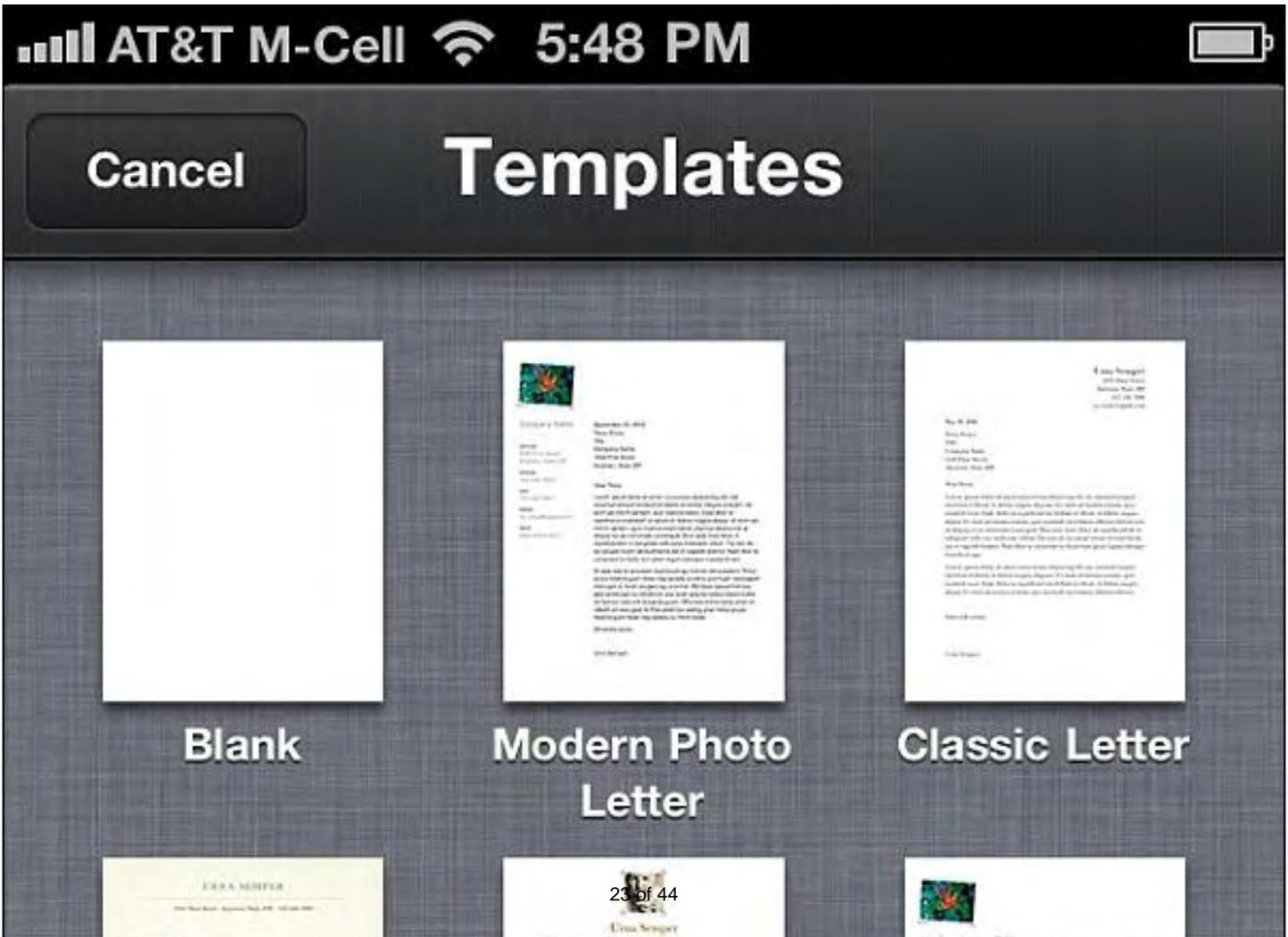
While it's unlikely that Android will disappear completely, manufacturers will have less incentive to use Android if it costs too much to use. Combine these patent issue problems with Android's fragmentation problem and you have a growing quagmire of technical and legal issues surrounding Android.

Now toss in Android's struggles to capture a significant portion of the tablet market and Android's appeal to smart phone and tablet manufacturers keeps dropping. As Android continues stumbling, the idea that Android will conquer the operating system market like Windows seems more like a distant fantasy every day.

No matter how many people use Android for their smart phone, a large majority of Android users are still choosing the iPad over Android tablets ([www.foxbusiness.com/technology/2011/07/11/android-users-buy-ipad-over-google-powered-tablets/](http://www.foxbusiness.com/technology/2011/07/11/android-users-buy-ipad-over-google-powered-tablets/)). If Android can't appeal to consumers and manufacturers alike, then the winners will be everyone else such as Apple, Microsoft and even Hewlett-Packard with webOS.

### Using iWork on the iPhone

The only office suite available for the Mac, iPad and iPhone is Apple's iWork, which consists of Pages (a word processor), Numbers (a spreadsheet) and Keynote (a presentation program). Obviously it's easiest to create documents on a Mac and fairly easy to create them on an iPad. However, the limited screen size of the iPhone makes iWork more challenging.





### Formal Letter



### Personal Photo Letter



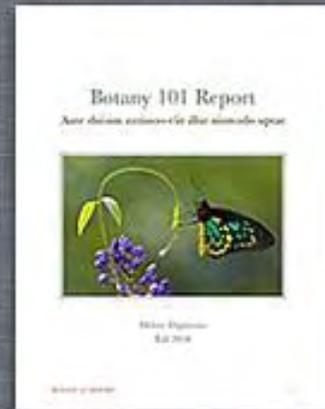
### Modern Photo Resume



### Classic Resume



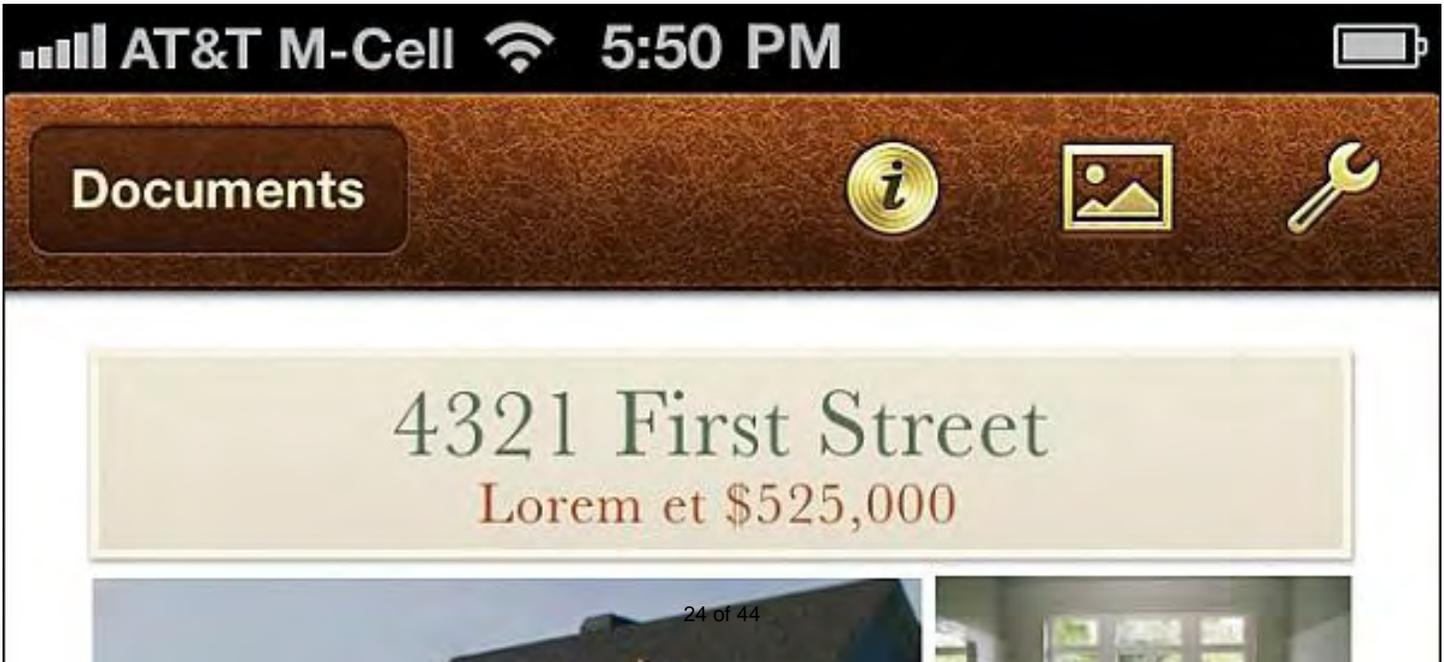
### Project Proposal



### Term Paper

Figure 4. Pages on the iPhone lets you choose templates.

Surprisingly, iWork on the iPhone offers many of the same features as Pages on the iPad. You can choose from a variety of templates that include text and graphics. Besides the limited amount of space for viewing your document or typing on the virtual keyboard, iWork on the iPhone lets you create and edit documents easily.






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**Tincidunt #654321**

**Lorem Ipsum et:**  
**1234 Main Street**  
**Anytown, State ZIP**

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- Proin, sapien sit, mauris amet in semper dolor
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- Dignissim sed eros, justo
- Convallis vestibulum vehicula, rhoncus
- Maecenas sodales nec, natus aliquam aliquetm
- Lacus metus, nunc dui
- Lobortis vulputate arcu neque lorem ipsum

Figure 5. Pages on the iPhone can display graphics with text.

The big drawback is that Pages and Numbers on the iPhone only work in portrait mode. On the other hand, Keynote only works in landscape mode.



Figure 6. Keynote only appears in landscape mode.

Creating iWork documents on the iPhone is possible, but it's unlikely that you'll want to write a complete report or develop an entire presentation just on your iPhone. Instead, iWork for the iPhone is better suited for editing existing iWork documents initially created on your Mac or iPad.

When iCloud launches later this year, iWork on the iPhone will prove invaluable since you'll be able to create a document on your Mac or iPad, sync it through iCloud, and then retrieve that document on your iPhone for minor editing or viewing. If you have a portable video projector like the \$399.95 Mili Pro ([www.phonesuit.com/mili-pro-ipod-ipad-iphone-video-projector/](http://www.phonesuit.com/mili-pro-ipod-ipad-iphone-video-projector/)), you'll be able to show your complete Keynote presentation (or any other iWork document) through your iPhone.



Figure 7. The Mili Pro iPhone projector.

As a standalone program, iWork for the iPhone is competent, but tiresome to use for long periods of time. Only if you're already using iWork on your Mac or iPad should you consider iWork on the iPhone as a complementary tool.

\* \* \*

One way to minimize a window is to click on its yellow minimize button in the upper left corner. Another way is to double-click on the window title itself. The window title displays the name of the file displayed inside the window and appears in the top of the window.

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 participle 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](http://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](http://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](http://www.amazon.com/gp/product/1593272758?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593272758)),

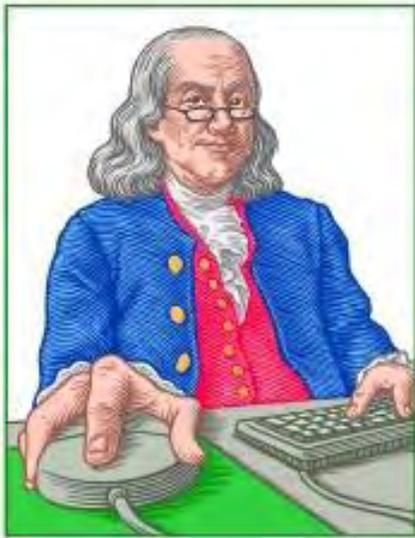
Steal This Computer Book 4.0 ([www.amazon.com/gp/product/1593271050?](http://www.amazon.com/gp/product/1593271050?)

*ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050*),  
Microsoft Office 2010 for Dummies ([www.amazon.com/gp/product/0470489987?](http://www.amazon.com/gp/product/0470489987?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470489987)  
*ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702*),  
Beginning Programming for Dummies ([www.amazon.com/gp/product/0470088702?](http://www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702)  
*ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541*),  
Beginning Programming All-in-One Reference for Dummies ([www.amazon.com/gp/product/0470108541?](http://www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541)  
*ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468*),  
Breaking Into Acting for Dummies with Larry Garrison ([www.amazon.com/gp/product/0764554468?](http://www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468)  
*ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894*),  
Strategic Entrepreneurism with Jon Fisher and Gerald Fisher ([www.amazon.com/gp/product/1590791894?](http://www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894)  
*ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362*),  
How to Live With a Cat (When You Really Don't Want To) ([www.smashwords.com/books/view/18896](http://www.smashwords.com/books/view/18896)).  
Mac Programming For Absolute Beginners ([www.amazon.com/gp/product/1430233362?](http://www.amazon.com/gp/product/1430233362?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362)  
*ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B004TMD9K8*)  
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))  
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/)) along with blogging about electronic publishing and how authors can take advantage of technology at his site "The Electronic Author." ([www.wallacewang.com](http://www.wallacewang.com)) Wally can be reached at [wally@computoredge.com](mailto:wally@computoredge.com).

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[Return to Table of Contents](#)



# LINUX LESSONS

**"AN INVESTMENT  
IN LINUX KNOWLEDGE  
PAYS THE BEST  
INTEREST."**

## Linux Lessons: Tips and Tricks from Users

**“.logout contains a list of "things to do" when you close an xsession.”** by Tony J. Podrasky

You can use .logout to save all the commands you typed in your previous sessions.

Filename: .logout

**Use:** <.logout> contains a list of "things to do" when you close an xsession. One useful thing you can use it to do is save all the commands you have typed to an audit trail file for future reference.

Sometimes it is helpful to be able to go "back in time" and see what was done to the system. If you have <.logout> turned on for root, you will be able to review all the commands root has issued. It could come in handy when someone logged-in as root, and a little while later the system "mysteriously crashed"...

This script works under the CSH shell file. BASH and SH can do the same, but have a different syntax. I hope that the gentleman that helped me the last time with an SH version of my CSH script will tag a note to this column with a SH version.

—————CUT HERE—————

```
#!/bin/csh -f
echo `date` >>~/Log/history.log
history >>~/Log/history.log
history -c
cp /dev/null ~/.history
```

—————CUT HERE—————

**Example:** In my home directory I have a subdirectory called "Log". In this "Log" directory is a file called "history.log". When I end an xsession, the .logout copies the date to history.log and then all my commands.

**Explanation:**

```
#!/bin/csh -f           Use the csh interpreter.
echo `date` >>~/Log/history.log Copy the date to the history.log in the user's Log directory.
history >> ~/Log/history.log   Copy the history file to the history.log in the user's Log directory.
```

```
history -c          Clear the history file.
cp /dev/null ~/.history  Clear the .history file.
```

\* \* \*

Note: When the system encounters the tilde (the little squiggle before the word "/Log" (~/Log/history.log) it will substitute the path of the user's home directory. What's neat is that it acts the same for every user.

```
tonyp% pwd
/var/ftp/pub
```

[I'm currently in the /var/ftp/pub directory]

```
tonyp% cd ~
tonyp% pwd
/home/tonyp
```

[Now I'm in my home directory]

```
tonyp% cd ~tw
tonyp% pwd
/home/tw
```

[Now I'm in tw's home directory]

\* \* \*

### Steps to setting this up:

1. Check your .tcshrc or .csh file and make sure you have the following two entries:

```
set history      = 500
set savehist     = 500
```

2. In your home directory, create a directory called "Log" <mkdir Log>. If you don't want a Log directory, then remove the word "Log" from the shell script.

3. In the Log directory create the history.log file <touch history.log>.

4. Copy the shell script (above) to a file called .logout in your home directory.

5. Close your current xsession.

Log in to the system again and type a few commands, such as <ls> or <pwd>, then log out. Log back in and check the history.log file and see if it has some entries. Hopefully, you will

see a time stamp plus a few entries.

\* \* \*

Silly Signature Du Jour

```
Tony J. Podrasky | Why does your dog keep staring at me and growling?
                  | Because he thinks you're stealing food from him.
                  | Why would he think that?
                  | Probably 'cuz you're eating out of his bowl...
```

--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."

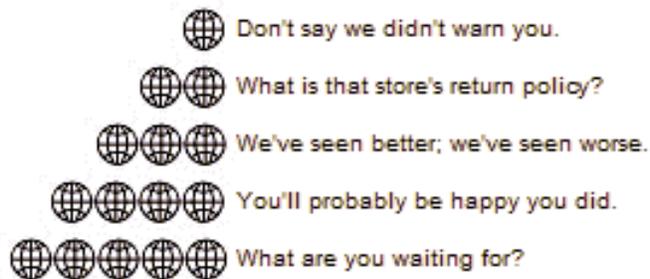
Tony has been in the computer field since 1976 when he started working for Data General Corp as a field engineer. Later going on to design hardware interfaces, write patches for operating systems, and build networks. It was in 1995 while working with the military on several projects that he ran into 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](mailto:hunybuny@netzero.net)).

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[Return to Table of Contents](#)

## Worldwide & Product news reviews



## Worldwide News & Product Reviews

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

Hackers Set Sights on Government; Make Your Staycation a Walk in the Park; Put Yourself on a Wireless Leash; Ear Candy for iDevice Users.

### Hackers Set Sights on Government

Regine Hartmann from the IT security and application security and management company, Idappcom ([www.idappcom.com](http://www.idappcom.com)), writes in this week:

The hackers LulzSec and Anonymous have come together to launch a new campaign against government organizations and banks. The main aim is to leak e-mails or classified information of governments, banks or "other high-ranking establishments" in order to expose what the hacktivist groups claim to be corruption and restriction of freedoms.

"The need to raise the security bar—by enhancing an IT platform's ability to detect and prevent malicious code from 'breaking through' the network perimeter—has never been greater," according to Idappcom's CEO Ray Bryant.

The UK and US governments have become increasingly aware that information is the new currency. This adds to the incentives that we think hackers are motivated by financial gain. Some want to make statements that they are fighting corruption or fighting for freedoms but the same information is used for gain (identity theft) and some can be used for far more sinister reasons.

[Recently,] the Serious Organised Crime Agency (Soca) was subject to a distributed denial of service (DDoS) attack designed to bring down its Web site. Today LulzSec say they have "blissfully obtained records of every single citizen who gave their records to the security-illiterate UK government for the 2011 census." Other recent LulzSec targets to have had their Web sites downed include the US Central Intelligence Agency and the US Senate Web site.

[So far, these] attacks were not damaging, but a Twitter post today has threatened that future attacks will be. Whether or not any tangible harm has been done to systems and data assets, there is considerable damage caused to the trust we place in agencies who are funded by tax payers.

"Against this backdrop there is a clear and present need to defend any organization's IT platform as never before. This can only be achieved by raising the security bar at the point where traffic enters and/or leaves your network," said Bryant.

In most western countries government departments are faced with the largest cuts, austerity measures, they have faced for many years. "Whilst there has been specific funding promised to create projects that look at the issues, the cuts are today and that presents a real problem for government departments today," Bryant continued. "How do you increase the security effectiveness without purchasing new equipment or recruiting additional expertise. This can be

done, raise the security bar, make what you have work harder and efficiently."

Whether purchasing security equipment for the first time or looking for sustainable improvements in the existing defenses, there is a "must have" case for using tools that ensure that the equipment you buy or enhance is working to the maximum mitigation potential. Those responsible for security can show that not only risk can be reduced, but the buying decision or the removal of need to replace existing equipment utilizes and frees up budget demands.

There is no such thing as a perfect secure structure; however, what can be done is to ensure that each stage of "inspection" is working at its optimum level of protection possible. There are many ways that security can be enhanced. Training of personnel to be security conscious, making sure every device that connects to the network is patched, and making sure desktop protection is current. However, perimeter defense is the front line in this war.

"Future attacks may be combined with evasion techniques but they can both be countered and resolved by using automated tools for audit and penetration testing of your perimeter defenses to ensure they are configured to detect effectively and that your security rules are doing the job they are supposed to," said Bryant.

"Ensuring your perimeter defenses are always operating at the highest level is the best form of defense. This does not mean that you have to slow down your traffic, the same tools can be used to tune your Intrusion detection to be more efficient."

We must start raising the effectiveness of the IDS/IPS/Firewall platform itself. IT Management have the opportunity raise their own bar with good strategy and practice. Recognize the threat as something from the outside and risk as the effect of those threats on the inside. Enhance your security and utilize your precious budgets.

## Make Your Staycation a Walk in the Park

*Paltalk.com*, a provider of software and technology for real-time, rich media, interactive social networking, has a virtual cure for the summer stay-at-home blues:

Many of us will be forced to celebrate the kick-off to the season of beach trips, popsicles and sunbathing from behind our office desks. So to prevent anyone from missing out on the fun, Paltalk.com has decided to help bring summer to everyone's cubicles with their 24/7 "First Day of Virtual Summer in NYC" video.

The fun and relaxing POV stream will capture the sights and sounds of summer in the big city for those who are stuck at work, depressed, stressed-out, or even missing the city from afar.

This free show ([www.Paltalk.com/entertainment](http://www.Paltalk.com/entertainment)) is available for anyone who wants to log on and watch the stream.

The following sights are explored during the video, taking a virtual romp around some popular summer hot-spots (pun intended):

### Central Park

- Join the scenic walk-through.
- Take a boat ride at the Boathouse.
- Hang in Sheeps Meadow and Strawberry Fields.

- Flying a kite.
- Visit Central Park Zoo.
- Try some ice cream.
- Take a bike ride on the paths

## Times Square



- Walk-through to see the sights.
- People-watch at the bleachers.
- Check out the street performers

## Madison Square Park

- Try the famous Shake Shack burgers.

## Highline Park

- Check out the highline art exhibits.
- Enjoy the amazing view.
- Try the beer at the Standard beer garden.
- Relax on the lounge chairs.

## Washington Square Park

- Watch the people play in the fountain.
- Check out the street performers.
- Find a great outdoor cafe.
- Read a book on the bench.

## Put Yourself on a Wireless Leash

A new gadget from ZOMM ([www.zomm.com](http://www.zomm.com)) dubbed "The Wireless Leash" (about \$75; in black, white, or pink) has one primary goal: to make sure you never lose your phone. The round, attractive device attaches to your keychain and wirelessly links to your cellphone via Bluetooth. If the two things get too far away from one another (approx. 30 feet) the Wireless Leash will flash, vibrate and set off a pretty loud alarm.



The Wireless Leash is also a hands-free Bluetooth speaker phone with up to two hours of talk time for those situations when it isn't safe to talk on your phone—like in the car. You can also actually take calls right from the device if, say, your phone is tucked away someplace else like in a briefcase or purse. Sound is pretty good. Press the device's center button once to take a call or twice to send to voicemail.

The Wireless Leash can also be set up to sound an alarm and call an emergency number with a single press. Might be a useful gift for an older parent who is prone to falls.



The Wireless Leash could do a couple of things better: For one, you're probably going to have to get in the habit of charging it every day. The specs say up to five days, but ... you know how that works out. There's a battery indicator in the myZOMM app (for Android phones). The unit itself will also make three short beeps every few minutes when the battery is getting low. Fortunately, charging is easy, thanks to a standard micro-USB port. Takes about four hours.

Another issue is that you may be surprised how often you get outside of the Wireless Leash's range. A little training—of you—might be required. I was setting off the thing everywhere, all the time, for about a week.

The ZOMM Wireless Leash comes with a key chain, belt/bag clip, an instruction manual, wall charger and a USB to Micro-USB computer cable.

Finally, using the myZOMM app, you can track down your KEYS using your PHONE, rather than the other way around ... just don't ever lose your phone AND your keys!



### Ear Candy for iDevice Users

Attention iPhone, iPad and iPod owners—how would you like to dramatically improve the audio quality of your music collection without replacing your earphones or headphones, without upgrading your tracks' sonic specs or file format, and without having to shell out a fortune? If your answer to these three questions is "yes," then SRS Labs' iWOW 3D definitely is for you.

iWOW 3D is an iDevice-compatible adapter that enhances audio output (this product also is advertised to enhance computer speakers' and vehicle speakers' output; testing for the present review was limited to iDevices). It accomplishes this by compensating for loss of detail due to audio file compression. SRS Labs claim that their adapter produces deeper bass, richer vocals and an immersive 3D effect that leaves listeners saying "Wow!" After diligent testing, this reviewer would have to agree totally and enthusiastically.

Good things come in small packages, and iWOW 3D is no exception. This device is a rounded quadrilateral (*en*.

[wikipedia.org/wiki/Quadrilateral](http://wikipedia.org/wiki/Quadrilateral)) unit measuring 1.5" x 1.25" x 0.375" and weighing only 0.3 oz. Its glossy black plastic body (Figure 1) houses the device's electronics and a 30-pin plug on top that fits into the dock connector on various past and present iPads, iPhones and iPods. A flexible but sturdy 3.75" cable with a stereo jack at its end emerges from the unit's bottom. The adapter's front has a removable face plate and a prominent on-off button. When turned on, the button illuminates very brightly; otherwise it remains dimmed.



Figure 1. iWOW 3D comes with a single (black) face plate, the premium Deluxe package comes with four additional face plates (blue, green, pink and silver) and earbuds.

This product comes in two packages. If you're fond of black and satisfied with your current earphones/earbuds/headphones, the basic package likely will suit you and your budget (MSRP \$69.99, \$59.99 direct from SRS Labs online ([www.srslabs.com/store/store/comersus\\_viewItem.asp?idProduct=43&idCat=60](http://www.srslabs.com/store/store/comersus_viewItem.asp?idProduct=43&idCat=60))). If you prefer a splash of color or want to replace iDevices' standard earbuds, the Deluxe package includes four interchangeable face plates—blue, green, pink and silver—plus earbuds for \$20-30 extra (MSRP \$99.99, \$79.99 direct from SRS Labs online ([www.srslabs.com/store/store/comersus\\_viewItem.asp?idProduct=42&idCat=60](http://www.srslabs.com/store/store/comersus_viewItem.asp?idProduct=42&idCat=60))).

Both basic and Deluxe packages come in an easily opened cardboard box with the "Made for iPod, iPhone, iPad" logo that ensures these adapters are compatible with devices which have Apple's 30-pin connector. The box includes a printed user guide in English, French and Spanish that walks you through five easy steps for plugging and playing—download and install SRS iWOW App, connect iWOW 3D to iDevice, open iWOW App, select the desired audio output, and choose optional settings (details in a moment). The guide also contains information about SRS Labs, product safety and warranty.

iWOW 3D's addictive audio quality-enhancing powers are generated by its internal electronics (Figure 2) which include a digital signal processor from Texas Instruments and programming by SRS Labs (this company specializes in surround sound, volume leveling, audio streaming and voice processing technologies). To activate these powers, you install and launch the aforementioned SRS iWOW App (currently at v.1.01; requires iOS v.4.2 or newer) that is available for free download from iTunes' App Store. This universal app's main screen displays options for headphones, speakers and cars (Figure 3). Tapping the Advanced Settings button opens a screen with three additional options—

wide surround, deep bass and high treble (Figure 3). Tests with various combinations convinced me that activating all three advanced options produced the optimal wow-ness. Your mileage may vary.



Figure 2. Digital signal processing hardware and software combine to produce iWOW 3D's audio enhancements that dramatically improve iDevices' audio output.



Figure 3. The free SRS iWOW App displays options for configuring the namesake adapter.

How do playlists and movies sound with iWOW 3D? SRS Labs' promotional materials include users' superlatives—"such a huge difference," "like the difference between night and day, between black and white versus color," "that's insane," "woooooow," "it's amazing," and "that's dangerous!" My contribution to the superlatives is simple—I'm incurably hooked. I no longer can listen to my music and video collection without the iWOW 3D. In its absence, my collection sounds plain, muddy, even dreary; the audio quality is totally inferior even when using expensive earphones.

So exactly what is the difference? You almost assuredly will begin to hear additional singers and/or instruments in your favorite tunes while using iWOW 3D with your present earphones (including Apple's signature stock earbuds) or speakers. My music collection is relatively small, and years of repeatedly listening to it has bred familiarity with vocals and instrumentals. However, this adapter revealed voices, bass guitars, percussion instruments and individual notes that otherwise were obscure at best. I might as well have been listening to my playlists for the very first time. Additionally, iWOW 3D brings audio into noticeably sharper focus and pushes layers closer to the front. Keep in mind that some tracks might benefit more from the adapter's enhancing powers than others depending upon their file compression.

During my tests, this adapter enhanced the sound of all iDevices and earphones/earbuds/headphones that I evaluated. It even made Apple's standard buds sound perceptibly better despite the fact that they fit into my ears improperly. iWOW 3D also improved the quality of my obsolete low-end, over-the-ears earphones. Sweet!

Besides its audio enhancing powers and affordable price tag, iWOW 3D has the following additional strengths. It is a cinch to use (perhaps the ultimate plug and play gadget), lightweight but sturdy (I scarcely noticed its added weight during testing), and it relies upon the iDevice for juice rather than having its own bulk-adding power supply that requires intermittent replacement or recharging. Its illuminated power button is sufficiently intense to serve as a

flashlight in a pinch. Lastly, when you put an iDevice to sleep without any music playing, iWOW 3D automatically shuts off after 20 seconds.

Are there any weaknesses? Apart from the lack of support for non-iDevices, perhaps the most serious one is power drain. My informal impression is that my iPod touch's battery drains 1.5-2X faster with iWOW 3D than without. This might be due, at least in part, to the adapter's button which remains illuminated as long as power is on. However much the drain's real amount might be, it could prove inconvenient during daylong hiking, biking, or other activities distant from a power supply. My own preference is to deal with recharging a single gadget's battery rather than with multiple ones, so this weakness is trivial compared to iWOW 3D's compelling strengths.

If you're looking for the thumpa thumpa emitted by pocket rockets at stop light intersections, better to look elsewhere. iWOW 3D is so much more than just a bass booster or miniature graphic equalizer, however. In my subjective comparison tests between this product and the equalizer function in iTunes and iOS, iWOW 3D won hands down.

One additional downside is the feedback or static-like noise that could occur during some tracks, such as ones including powerful alto voices. Purists might object to such artifacts, especially protracted ones (e.g., in opera). I noticed this kind of disturbance in only one tune during my tests.

iPhone owners will experience the following limitations when using this adapter: earphones' inline microphone or remote are not supported; iWOW 3D must be disconnected from an iPhone before making or taking a call; and wireless headsets and earphones are not supported.

For the next generation iWOW 3D, pass through might be a desirable feature. This would provide support for recharging the iDevice without having to unplug the adapter, plug in a 30 pin connector-to-USB cable for charging, and then swap again to resume usage.

In conclusion, iWOW 3D is a cost-effective product for appreciably improving iDevice owners' music listening experience without paying for new earphones/earbuds/headphones, spending time on tune file upgrades or conversions, or breaking the bank. Excuse me for signing off now; time to get another dose of wow-ness.

 4.5 globes

Review contributed by Barry Fass-Holmes

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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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[Return to Table of Contents](#)



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

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

"Forward Looking," "Scrolling Problem," "The Cloud Will Hurt Computer Sales?"

### Forward Looking

[Regarding Marilyn K. Martin's June 10 article, "You-Probably-Missed-It Computing Stories":]

Forward looking and I am looking forward to seeing more of this. A must read for every issue.

-The Fat Guy, San Diego

*Thanks for your comments. I'll start collecting more odds and ends computing stories like this for future articles.*

*-Marilyn K. Martin, Texas*

### Scrolling Problem

[Regarding the July 1 Digital Dave column:]

I hope there may be other suggestions, because neither the Tools option nor an add-on corrected the problem. The add-on might have made it worse, because the page keeps on scrolling even after the keyboard arrow or the mouse are released.

Thanks again,

-Sandy, San Diego

*[You never mentioned what type of keyboard and mouse you're using. I have noticed that when using a wireless keyboard and/or mouse these symptoms often occur when the batteries are getting low.*

*-Digital Dave]*

Last week, I got an automatic update for Windows 7. Afterward, pages scrolled up and down, with no way to scroll to the top or bottom. I restored the computer to the previous restore point, and things went back to normal. Yesterday I did a manual update of Win 7, but the problem of last week did not return. I have heard that sometimes Win 7 problems go away on their own after a few days, perhaps from stealth updates from Microsoft that fix new bugs.

-Marty Haase, Niwot, CO

Thanks for the tip on Firefox scrolling extensions. I installed one called "SmoothWheel" which got rid of a hurky-jerky

scrolling problem on Firefox 5 and is nicely configurable under "options." Here are two others of what I consider indispensable extensions which you may or may not have come across. One is called "BacktoTop" that appears in the context menu and allows you to go instantly to the top or bottom of a page. The other is "Scrapbook" that appears in the menu bar and saves an image of any Web page (for some reason eBay pages excepted). It saves a ton of printer ink and is extremely convenient. Happy 4th!

-Ken Hultman, San Diego, CA

## The Cloud Will Hurt Computer Sales?

[Regarding the July 1 Wally Wangs Apple Farm column:]

I don't buy that Cloud Computing will have much of an effect on hardware sales. Regardless of whether you install software on your computer or operate off the Cloud, you still need a computer. Not many people make new computer buying decisions based upon upgrading to the latest word processor.

On another note, making molehills out of molehills. Adding 2% market share (now up to 11%) to Macintosh is hardly sounding the death knell of Microsoft Windows. Perhaps everyone is bored with new operating systems at a time when Windows XP is adequate. This includes Mac OS X Lion. What does it add to the mix which compels Mac owners to upgrade?

-Richard, Oceanside, 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).

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