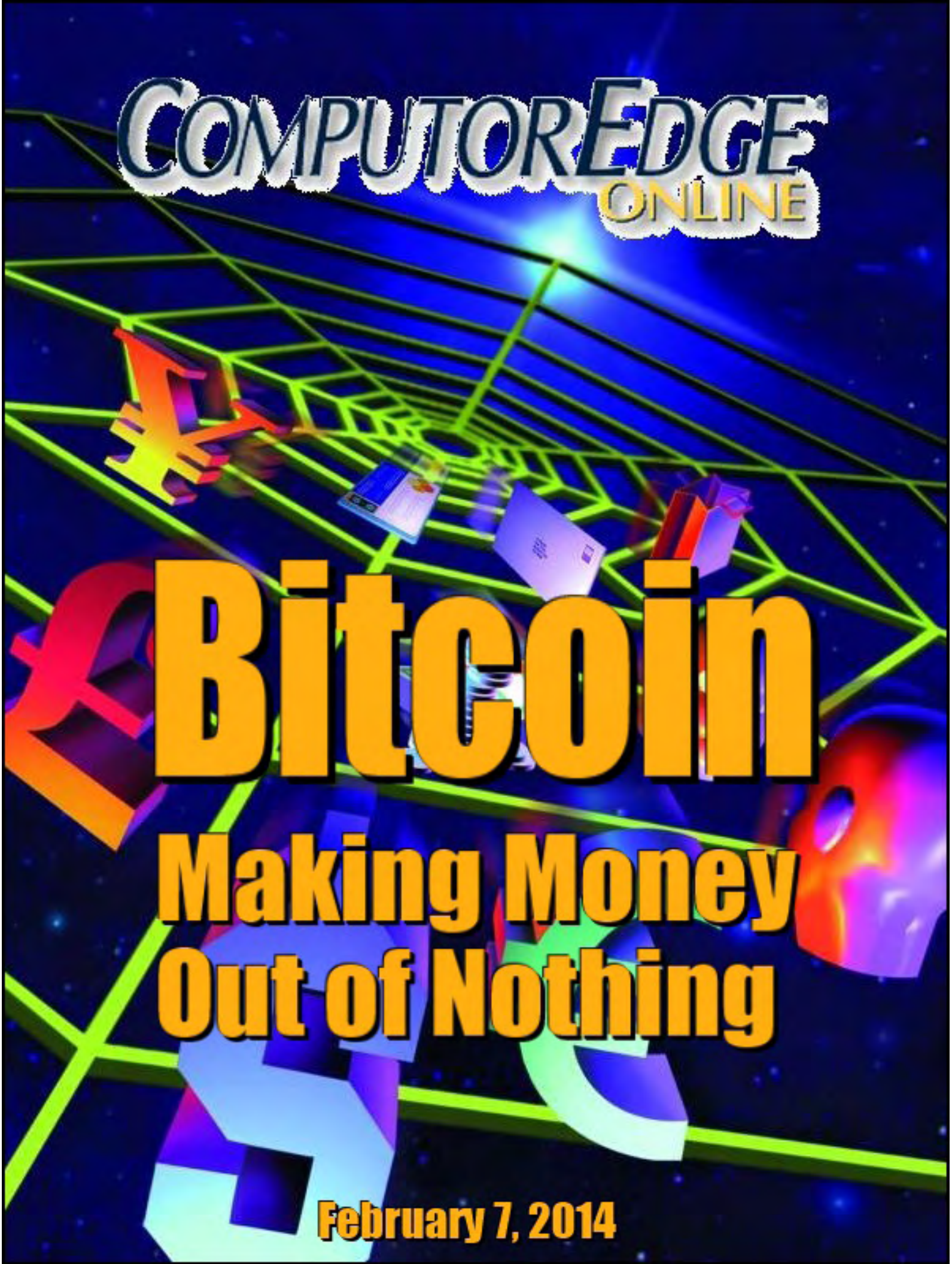
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February 7, 2014

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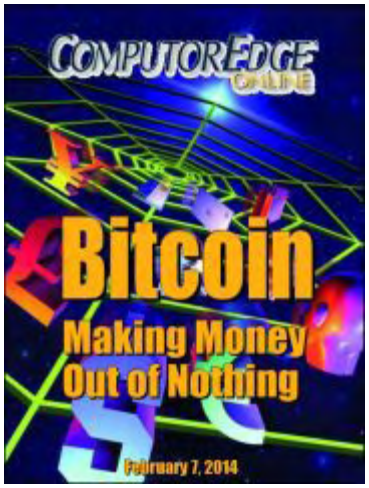

Bitcoin: Making Money Out of Nothing

Created and run by a computer program, Bitcoin is catching on as a currency. Here's how it works.

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Digital Dave

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

Portable Network; What is IE 11? Why Do I Need It?

Portable Network

Dear Digital Dave,

I will be making a four week business trip which will put me in a "suites" hotel for the entire time. Wireless Internet access is provided as part of the room cost. I would like to be able to set up a network to permit my laptop, tablet, smart phone, and NAS hard drive to communicate easily and have access to the Internet. I understand how to set up a modem for "wired" Internet WAN access, but is there such a capability for "wireless" WAN access as I have described? What hardware would you suggest I look at? I would appreciate any advice you're able to offer.
Joe
Pinole, CA

Dear Joe,

The key to setting up any network which shares the Internet with a laptop computer is two network cards. Most laptops have that in the form of a wireless card for connecting to Wi-Fi and a hardwired network port. If you have a router in the hotel room then you can plug the laptop directly into the router, share the connection in the Network Properties settings, then set up the wireless card as an ad hoc wireless access point. However, in your situation you will have wireless access, but no hardwired connection. A wireless card can either be used to connect a device or to broadcast, but not both simultaneously. For your situation, you will need two wireless cards or the equivalent capability; one to set up the network and connect to the Internet; the other to broadcast the shared connection.

The best solution is probably to get a wireless travel router which you can plug into your laptop computer to share the Wi-Fi connection. While you could share the connection by adding a USB Wi-Fi dongle (no hardwired network ports), the travel router will give you more flexibility without costing too much more. There are a few travel routers which seem to have pretty good reviews on Amazon: TP-LINK TL-WR702N Wireless N150 Travel Router, TP-LINK TL-WR710N 150Mbps Wireless N Mini Pocket Router, or ZyXEL 3-in-1 Wireless N Pocket Travel Router. The last two of which have two network ports for more flexibility. You will want to take a close look at their features to determine which one is better suited to your situation.

The advantage of having two ports is that one will plug into the laptop (or hotel router if available) and the other can be used with another device (or the laptop if it's connected to the hotel router). In all situations you will be setting up a Wi-Fi hotspot available to all of your other devices. As long as the travel router is plugged into something with a shared connection (laptop connection must be shared through network connection Properties settings), then there should be Internet access for all the connected Wi-Fi devices. Plus, with the proper sharing the devices should be able to interact on the internal network.

There are multiple ways to set up this type of router depending upon what you have available, plus some can be powered from an AC outlet as well as through a computer USB connection. If for some reason you don't have a physical network port in your laptop, make sure you get a Wi-Fi access point which will work through a USB port. When shopping, if the product description doesn't clear up the capabilities, the user reviews will often offer more specifics—many of which may reflect exactly your situation.

Digital Dave

What is IE 11? Why Do I Need It?

Dear Digital Dave,

I have been a subscriber and a fan of yours since back in the nineties. Every year or so I have a question and you have never failed me. Thanks.

The other day I wanted to upload some photos to Costco for printing and their Web site said in order to do that I had to download IE 11. At first I thought it was some type of scam, but

it wasn't.

As soon as I did everything worked out fine. What the heck is IE 11? And why did I have to upgrade? There's no hurry. I'm sure you have bigger problems to consider. Thanks again for being there. I appreciate it.
Gabby DeDonato
San Clemente, CA

Dear Gabby,

There is no bigger problem for a computer user than when people who build Web sites or write documentation use obscure language and acronyms assuming, "Everyone knows that!" Sometimes people believe terms are common knowledge and they neglect to clarify, leaving many people saying, "What's that?" This is why I try to either use complete terms or define the abbreviations. I find that I often need to do a Google search to find out what the heck people are talking about. LOL (Laugh Out Loud).

IE 11 is generally accepted to mean Internet Explorer version 11. I'm guessing that you had an older version of Internet Explorer than would work with the Costco photo Web site. (I know it must have been older than IE 10 (Internet Explorer 10) because I tried the site with that and it worked fine.) The Costco site says it supports Internet Explorer 8 through 10, Firefox 3, and Chrome for Windows computers, so your version must have been before IE 8.

When you access a Web site, part of the information passed to the Web server is the name and version of browser that you're using. That's how a site knows when to prompt you to download the latest version—usually offering a link to the correct download site.

You didn't need to actually get IE 11. Any version from IE 8 on would have done the job, but if you go to Microsoft, IE 11 is the first version it offers. To get an earlier version you would need to do a specific search for it with the version number. The reason I mention this is that IE 11 has been notorious for having problems—although most of those may have been worked out by now.

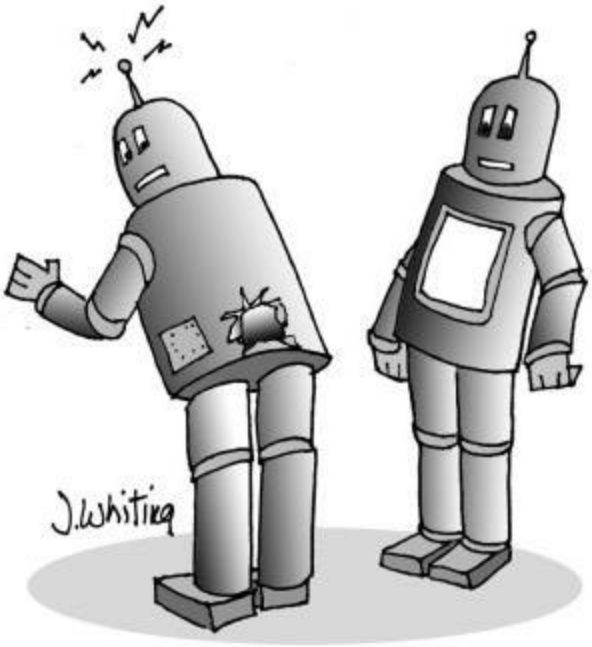
Digital Dave

Bitcoin: The New Cyber Currency

"Bitcoin Made Millionaires from Nothing" by Jack Dunning

Designed to automatically grow as the new money is used, Bitcoin has established itself as a monetary phenomenon.

Imagine if you could make one billion dollars out or thin air—or more precisely digital bits. I don't mean earn it by selling products over the Internet or running ads in cyberspace, but literally create money out of nothing. That's what Satoshi Nakamoto has done. Satoshi Nakamoto is the fictitious name for the developer (or group of developers) of the Bitcoin software, a new digital trading currency which has developed a following (and value) throughout the world. Through the work in launching the cyber currency software network, it is estimated that Nakamoto acquired (or created) about one million bitcoins as personal earnings. Since bitcoins are now traded at about $800 each, that represents approximately $800,000,000. At one point in December 2013, one million bitcoins were valued at over one billion dollars. Not bad for something that started out with zero value. In fact, many economists contend that the true value of a bitcoin is still zero.



"It appears that someone picked my pocket and stole my Bitcoin wallet."

What is Bitcoin?

You use credit cards and write checks as a standard way to shop and pay bills. You might also carry around cash since it is accepted almost everywhere—except on the Internet. Regardless of how you do transactions, the monetary system is an integral part of your commercial life. It is how we buy and sell things. Ultimately, it was inevitable that computers and the Internet would give us a new currency. Those are the seeds behind Bitcoin—a new form of money.

Bitcoin is a phenomenon of the digital age which may (or may not) have significant impact on the world monetary system. When the word "Bitcoin" is capitalized, it denotes the protocol and software that runs this relatively new currency system. When the work is not capitalized, "bitcoin" (symbolically BTC) represents the currency itself. As the name implies most bitcoins exist in digital form—although there are both minted and printed forms of the money.

Many people have heard the word Bitcoin, but most have no idea what it is or how it works. Here is a short introduction—with appropriate warnings.

Digital Bits Turned into Money

Developed by Satoshi Nakamoto (as mention, a pseudonym for one person or a group) and first introduced to the Internet in 2009, Bitcoin is an accounting system which uses computers on peer-to-peer networks to record financial transactions between two individuals. The unit of each transaction is the bitcoin. In its simplest form that is all that the Bitcoin system does—validate and record financial transactions in bitcoins between two people (or entities) over the Internet. In actual computer work, the system is much more complicated since it uses the solving of complicated cryptographic problems to secure the transactions financially. The key to its current success is Bitcoin's transaction security.

Figure 1. Bitcoins can be turned into paper money (or coins as shown above), but the encryption keys must be embedded in the bills making them more susceptible to fraud (double spending). Only the electronic transactions are considered safe.

By transaction security I don't mean protection from prying eyes. There is some degree of identity protection, but the transactions are fully available to anyone with the proper (free) software. In fact, that openness is part of Bitcoin's strength. The official record of transactions is duplicated on thousands of computer across the Internet. The security is in the financial algorithms, public encryption keys, and private encryptions keys which protect against the potential fraud and abuse which might occur in any monetary system. It appears to be virtually impossible for someone to either create their own bitcoins or double spend the same bitcoins.

While control of the Bitcoin software source code has been turned over by Nakamoto to Gavin Andreson, there is no controlling authority (such as the Federal Reserve or any other national bank) for the operating Bitcoin system. The system is dependent upon the thousands of independently owned computers of the Bitcode Miners (computers that validate the transactions) throughout the world. They are all connected and all the transactions are recorded on each of those computers.

There are two types of free software programs which are integral to the Bitcoin system. The first is the Bitcoin Miner software which is used to verify and validate transactions—which earn new bitcoins if successful. The second is the Bitcoin Wallet software which maintains the bitcoin balances owned by individuals and resides only on their computers. These balance accounts only exists on the hard drives and devices of the bitcoin owners. There is no central database of the account balances—only the Bitcoin transactions.

The transactions are made possible through a complicated encryption process which is built into the system. It's not necessary for users to understand how it all works, but there is a minimum level of personal computer confidence wanted to use the system. (It's similar to the level of knowledge and actions required to send e-mail—although it is not e-mail.) To use bitcoins, you must have a Bitcoin Wallet.

How Bitcoin Works

Bitcoin is a currency system operated by a network of peer-to-peer computers. These computers are called Bitcoin Miners (as in mining for gold). Anyone can run a Bitcoin Miner with the free software, but it's not necessary just to own and use bitcoins. The miners are the auditors of the system verifying each transaction. They compete with each other to solve a complicated problem required for a transaction to be validated. If a particular miner is the first to find a valid solution, then they receive a small transaction fee (in bitcoins) and newly generated bitcoins. (The current number of new bitcoins for successfully mining a transaction is 25 which at current bitcoin prices equates to about $20,000.) The more computing power working on the transaction problem the better the chance that a miner will prevail. But, if all you want to do is use bitcoins to buy and sell, you don't need to know all this. (See more in depth information available on how Bitcoin Mining works. This Web page offers a visualization of a mining computer solving the transaction problem. See Figure 2.)

Figure 4. In this representation of the Bitcoin mining process for validating transactions. The mining computer guesses at the answer to a complex problem until it finds a solution. If solves it before any other miner, it gets a transaction fee and newly minted bitcoins (virtual bitcoins, not metal).

People use their bitcoins to buy goods and services throughout the world. They store their bitcoins in a digital wallet on their computer which is available as free software. To either spend or accept bitcoins, the digital Bitcoin Wallet software is needed. When someone makes a transaction with another person or business, they set up an address with the transaction which is sent to the recipient. There are public encryption keys and private encryptions keys involved in the process which are necessary for each to complete for a valid transaction. Action is required on both ends before it is submitted to the miners for verification. For people new to Bitcoin, there are now markets where bitcoins can be purchased—the same as any other currency. The best known is Mt. Gox. Bitcoins can also be obtained by accepting them for goods or services, but you do need the Bitcoin Wallet software to accept bitcoins.

The Value of Bitcoins

Bitcoins have no intrinsic value. This should not come as a shock since national currencies in general have no intrinsic value—although it is contended that national currencies are backed by the national economies. Money is only worth anything because people believe it's worth something. Once the population stops believing that its money has value, the currency collapses. This is true for all currencies, including gold.

While gold has intrinsic value based upon industrial uses, its price is far more influenced by what we think it's worth than its utility. Even with gold's use in jewelry, its value is subjective. If gold jewelry went out of fashion (I'm not saying it will), the price of gold could collapse.

The difference between bitcoins and dollars is that the Federal Reserve (the central authority) can print (or create out of thin air) more dollars anytime it likes. The central authority for Bitcoin is a computer program which releases new bitcoins (up to a maximum of 21 million) at a calculated rate to the Bitcoin Miners as they successfully complete the transactional work. As the number of bitcoins in circulation increases, the release rate is slowed. No one, except possibly those who control the software source code, can create more bitcoins on a whim. (I'm not sure what kind of controls are built into the system to prevent those who control the software from making more bitcoins for themselves, but, if unvalidated bitcoins appeared out of nowhere, it's quite possible that the Bitcoin Miners would notice through the attempted transactions. I'm only guessing that this is how it works, but there would need to be some sort of built in mechanism (and the overview of thousands of miners) to prevent this type of Bitcoin fraud. Plus, since the software is open source with many competent people looking at the code, it would be quite difficult to slip something nefarious into to system for self-dealing new bitcoins.) Of course, Bitcoin is software and ultimately software can be hacked—even when it seems impossible.

Bitcoins have established their value over the last few years partially through the people who use them, but mostly through trading by speculators. The current value of a bitcoin is about $800, however there is an inherent risk in any currency traded on a market. The value will fluctuate (see Figure 2). This may not bode well for the future of the currency.

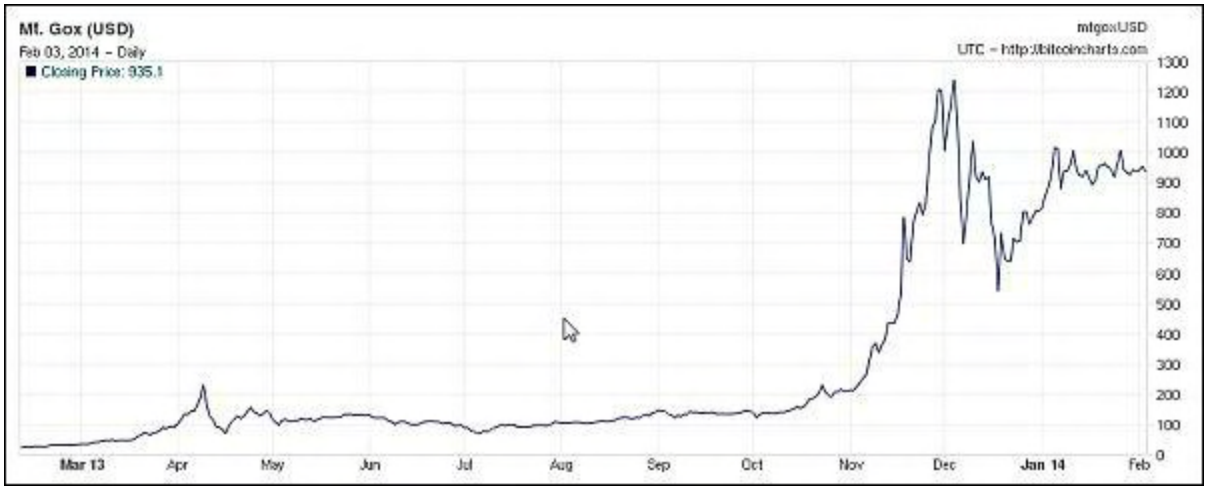


Figure 2. While the price of bitcoins was relatively low over the first few years, it has shot up with wild swings in 2013.

The problem with accepting bitcoins as payment is that the severe price fluctuation can wipe out any possible profit. If a product is sold for bitcoins at one rate and the price drops by 15% the next day, there is a heavy loss. All it takes is a large number of people deciding to get out of the Bitcoin market at the same time and it's done. This market price fluctuation may be the major obstacle to Bitcoin ever becoming generally accepted as a currency system for commerce.

Don't Lose Your Wallet!

The Bitcoin Wallet and access with private encryption keys are the only record of individual bitcoin holdings. It exists only on your computer hard drive or other data device. There are stories of people who accidentally reformatted or threw away an old hard drive and lost anywhere from $100,000 to one million dollars in bitcoins. I'm guessing that most of these stories are cyber legend, but I'm sure that there is someone who was stupid enough to wipe out their interest in Bitcoin.

If people got into Bitcoin early on, it's quite possible for them to have considerable value sitting on their hard drive in their Bitcoin Wallet. In April 2011 the price of a bitcoin was about 75 cents. (Before that it was pennies.) One thousand bitcoins could be purchased for $750. If the user for whatever reason lost interest and forgot about the account, it would be worth about $800,000 today. This brings an entirely new concern to reformatting a hard drive.

There are also stories of people having their Bitcoin Wallets stolen. If someone managed to get a copy of both you're the wallet and the private encryption keys, then they have full access to clean out the account. For that reason it is advised that the encryption keys be kept on an isolated computer (no Internet access), thumbdrive, or even a piece of paper.

Is Bitcoin Secure?

The extensive use of encryption keys is to ensure that the system is sound and protects against misuse of the currency and fraud. The transaction validation process through the mining computers, which takes about ten minutes, is built to prevent the multiple use of the same bitcoins. In other words, the same bitcoins cannot be used for more than one transaction at a time. This security system makes the accounting books right, but does little to hide the identities of the individuals. While the transactions don't include any personal information, the transaction records are transparent and available to anyone. It seems that it's not too difficult to the follow money trail and ultimately identify the people involved. This has resulted in arrests for people accused crimes such as money laundering. It seems that Bitcoin is commonly used in illegal activity such as the drug trade. The money itself seems to be secure enough, but it's not designed to protect your privacy.

Plus, Bitcoin is not a likely haven for tax dodgers. While you can keep your Bitcoin Wallet secret, whenever you convert bitcoins to another currency, such as dollars, those trading firms are subject to the same disclosure regulations as any other financial institution.

Acceptance of Bitcoin

More and more legitimate enterprises are accepting bitcoins for payment. Overstock and TigerDirect are two of the early companies to jump in. It's predicted that the number of reputable businesses accepting bitcoins will grow and stabilize Bitcoin as a legitimate currency system. Much of this depends upon the experience of the companies that do venture into Bitcoin. If it goes well, then Bitcoin use is likely to grow. If operations have bad experiences, then they will likely drop the experiment. If these early adopters find it profitable, and there is no catastrophic loss of faith, this should help flatten the price fluctuations in the bitcoin thereby reducing speculation.

The plus for companies that accept bitcoins is the transaction fees are low when compare to credit cards (2 to 3 percent). In fact they appear to be zero. The miners are paid the transaction fee (if any) when the whoever is doing the transaction decides to offer a fee. For now the newly minted bitcoins are enough to get the attention of the miners, but by 2140 when it's expected that the 21,000,000 bitcoin level will be reached, there will be very little new bitcoin incentive for the miners to take up a transaction without some level of fee. Whoever offers the best fee will get the most attention and get their transactions processed.

There is also the hidden cost of the newly minted bitcoins that the miners earn. The miners do makework in the form of a computer problem to "earn" or "win" their reward. These new bitcoins are paid for by everyone who owns bitcoins by theoretically diluting bitcoin value. Right now, $20,000 is a pretty hefty fee for a transaction, but it's paid by the system as a whole—affecting everyone who owns bitcoins.

Government and Bitcoin

Most governments don't know what to make of Bitcoin. They don't like the idea that there is a currency that they can't control, but in most cases it has not been deemed illegal. Some countries such as China who fear capital flight are cracking down on trading in bitcoins. Companies with Bitcoin trading operations have also run into trouble with regulators in India, as well as, the United States. As Bitcoin grows in popularity, world governments will certainly be taking much closer looks at the operations, although it may be next to impossible for anyone to stop Bitcoin.

The problem for governments is that there is no one Bitcoin entity that they can shut down. Since the system is distributed on Bitcoin Miner computers throughout the world, no one has the authority to control it. The "monster" has been released from the box and can't be captured or returned. However, national governments can regulate the businesses within their borders which trade or bank in bitcoins. That is certainly an impediment to the future of the new cyber money.

It's impossible to know what will happen with Bitcoin, but it is certainly a grand experiment. If successful, Bitcoin will likely spawn many copycat currencies. Most will probably collapse through lack of use, but it is quite possible that there will be separate cyber currencies for specific markets.

Should I Use Bitcoin?

Personally, I have no compelling reason to use Bitcoin. I don't need to move money across borders and I don't make the type of purchases that would make Bitcoin preferable over a credit card. I'm not a speculator, so buying and selling bitcoins is not a risk I'm willing to take. The price of a bitcoin is high enough that growth in the market may be limited compared to those who ventured in a few years ago—although this is impossible to know since there are always people who believe that the sky's the limit.

However, you may not be like me and have compelling reasons for using Bitcoin. If this is the case then it's not all that involved to get going. There is a free download of A Beginner's Guide To Bitcoin And Bitcoin Services which should give you most of the answers you need. (Note that you will most likely get an expired security certificate warning for the linked site. There is little reason to be concerned about this since the sale and control of security certificates is one of the biggest scams on the Internet. While the existence of the certificate does tell you that the connection is encrypted, the fact that it has expired or doesn't have a recognized issuing authority is pretty much meaningless. Anyone can get an official security certificate which doesn't set off alarms—even the bad guys. This makes the warning in your Web browser meaningless.) There also plenty of other Bitcoin informational resources on the Web including videos—if you just want your computer to tell you about it out loud.

Satoshi Nakamoto made money out of nothing, but I suspect that the opportunities to repeat this will be severely limited. It certainly shows the value of being the "firstest with the mostest", but in history that position is rare and reserved for the most innovative.

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

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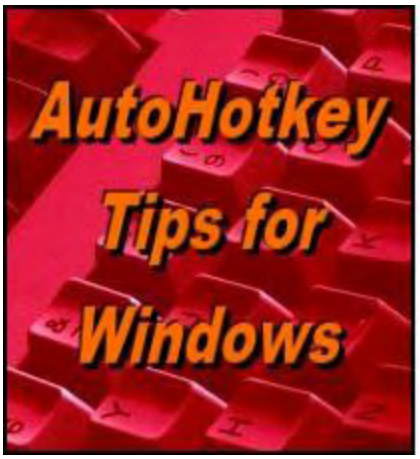


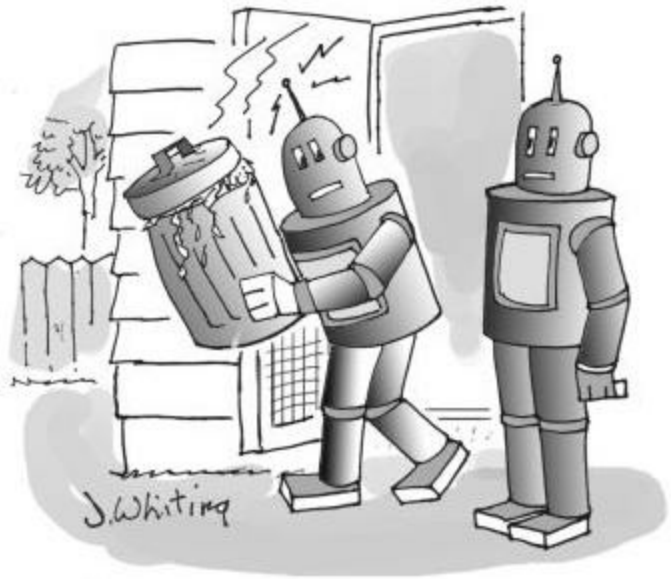
Easy Beginner AutoHotkey Tricks You Should Use with Windows

"If You Do Nothing Else, Use AutoHotkey to Instantly Insert Your E-Mail Address into Web Forms" by Jack Dunning

It can be a pain to type long, convoluted e-mail addresses. Use AutoHotkey to instantly add yours and maybe your password too.

Hotstrings for Entering E-mail Addresses

As I look at all the ways that I routinely use AutoHotkey, some of the most useful are the simplest. I find that since so many Web sites use the e-mail address for account sign in, I'm often entering my e-mail address into the username field. Some pages let you store the username by saving it in a cookie. Others make you re-enter it every time. Most browsers have the capability to save usernames for each Web site, yet, even though I use those built-in save features, I find that I'm often having to type in my address. No matter how long your e-mail address, it's always awkward to type. It's the @ that causes the problem. For some reason it's impossible to remember the location of each punctuation key in the top row of keys. Not only do you have to look, but the SHIFT key needs to be included in the process.



"From where I stand, a dog's life looks pretty darn good!"

To make the e-mail address problem worse, they are usually unreasonably long often with odd combinations of characters. It takes a long time to learn to type "computoredge.com" as all one word (and put that strange "o" in it). For many people the situation is worse. That's why this simple AutoHotkey

technique is one of the most used features of my scripts. With it I can convert any e-mail address of any length into a two character word which instantly expands into the full address without adding any trailing space. (It's important that no space or return be tacked onto the end of the e-mail address as many accounts would not recognize a username with a trailing character.)

(If you're new to AutoHotkey, but would like to add these tools to your Windows computer, see "Installing AutoHotkey and Writing Your First Script.")

Fortunately this instant e-mail address feature can be implemented with AutoHotkey in one line by adding an option to a hotstring command:

```
:*:j@::mrjackdunning@computoredge.com
```

An option is included in the hotstring line by placing the appropriate parameter between the first two colons, in this case the asterisk (*:*:). This asterisk causes the replacement to occur immediately when the @ character is hit. No space or other terminating character is added at the end of the line. Plus, if the combination is preceded by any character other than a terminating character (space, comma, return, period), then it does fire at all. That means if I type another e-mail address which happens to have a "j@" in it, it won't fire. For example, ritaj@wizziwig.com would not convert the "j@" to "rita*mrjackdunning@computoredge.com*wizziwig.com."

I know…I'm still using the awkward-to-type @ character, but there is a good reason for that. There are almost no words that would start with "j@" (none off the top of my head). By using @ in the two character combination, I greatly decrease the risk that the e-mail address replacement will trigger while I'm typing another word. Of course any unusual character would do.

If you check out the documentation for hotstrings, you'll see that there are a number of possible options which go between the first two colons including no automatic erasure of the hotstring (b0), capitalization sensitivity (c), omit the last character (o), and a few others.

Adding a Password

You may or may not want to add passwords to your e-mail address or username to recreate an automatic login. On the downside, passwords will appear in the AHK file in plain text. Anyone who has access to your computer could conceivably read your AutoHotkey login script. Even if you compile the file, it is still possible for someone to recover passwords by opening the EXE file with a program as simple as Notepad. While most of the file will appear as garbage, anything that was entered as plain text (the passwords) will appear as such somewhere in the file.

On the plus side, people will not necessarily know where to look for the logins as long as you

don't use an obvious filename such as *passwords.ahk*. Plus, even if someone happens across your passwords, as long as you don't indicate which passwords apply to which account, then the nefarious person accessing your computer will need to figure it out. Whether you use this technique or not is entirely up to how comfortable you feel about someone else getting on your computer. If you save passwords in a browser, you run the same (or greater) risk since anyone on your computer can log into your accounts by merely opening the login page. For that matter, a person can go into Settings in Chrome, or Firefox, and see both the Web site and the password by merely clicking "Show" next to the saved password. (Internet Explorer saves the passwords in the Registry in encrypted form, so if you are going to use a browser to save passwords, Internet Explorer is probably the safest.) At least with AutoHotkey the villain would need to know which hotstring (or hotkey) to use with which site (unless you use the same password for everything).

Even if you used an AutoHotkey function to encrypt the passwords, it would require a key. Anyone who could access your files would be able to decrypt the passwords using the same key found in the AHK file.

That's your warning. If you feel safe then you can do a complete login with the following type of code:

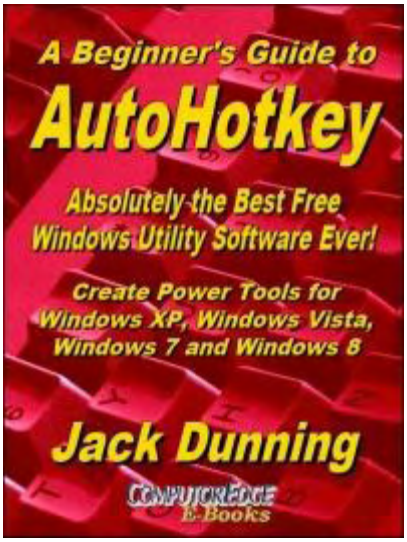
```
:*:a1@::myaccount@computoredge.com{tab}YourPassword{return}
```

In this case, the instant that "a1" is typed it will be converted to the username "myaccount@computoredge.com", jump to the next field (*{tab}*), enter the password "YourPassword", then press the RETURN (or ENTER) key. It's that simple! You can set up up all your logins in this manner using a different hotstring for each. The problem is that you will still need to remember which hotstring is which. Maybe you can write them on a piece of paper in some sort of code.

This same technique can be used to fill in name and address fields on forms, as long as there are always the same number of fields in the same order. Just use *{tab}* each time you need to jump to another field.

Tip: In a browser, you can quickly move data to the proper field by highlighting it and dragging it to the new location.

* * *



The new second edition with more chapters and an index to the AutoHotkey commands found in the book is available in e-book format from Amazon (and other formats—EPUB and PDF— at the ComputorEdgeBooks Web site linked below). Jack's *A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8* offers a gentle approach to learning AutoHotkey.

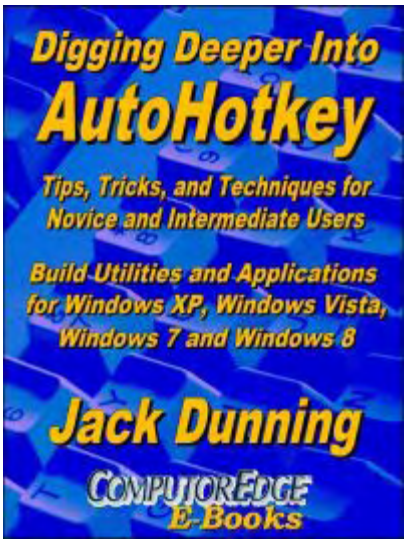
Building Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8, AutoHotkey is the most powerful, flexible, *free* Windows utility software available. Anyone can instantly add more of the functions that they want in all of their Windows programs, whether installed on their computer or while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

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

For an EPUB (iPad, NOOK, etc.) version of A Beginner's Guide to AutoHotkey click here!

For a PDF version for printing on letter size paper for inclusion in a standard notebook of A Beginner's Guide to AutoHotkey click here!

* * *



Jack's latest AutoHotkey book which is comprised of updated, reorganized and indexed columns from *ComputorEdge* is now available at Amazon for Kindle hardware (or free software) users. Since the columns were not all written in a linear fashion, the book has been reorganized and broken up into parts by topic. The book is not for the complete beginner since it builds on the information in *A Beginner's Guide to AutoHotkey*. However, if a person is reasonably computer literate, they could go directly to this book for ideas and techniques without the first book.

For an EPUB (iPad, NOOK, etc.) version of Digging Deeper into AutoHotkey click here!

For a PDF version for printing on letter size paper for inclusion in a standard notebook of Digging Deeper into AutoHotkey click here!

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

Hidden Windows Tools for Protecting, Problem Solving and Troubleshooting Windows 8, Windows 7, Windows Vista, and Windows XP Computers.

Jack's *A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8* and *Digging Deeper Into AutoHotkey*.

Our second compilation of stupid *ComputorEdge* cartoons from 2011 and 2012 is now available at Amazon! *That Does Not Compute, Too! ComputorEdge Cartoons, Volume II: "Do You Like Windows 8 or Would You Prefer an Apple?"*

Special Free Offer at ComputorEdge E-Books! *Jack's Favorite Free Windows Programs: What They Are, What They Do, and How to Get Started!*.

Misunderstanding Windows 8: An Introduction, Orientation, and How-to for Windows 8 (Seventh Edition)!

Windows 7 Secrets Four-in-One E-Book Bundle,
Getting Started with Windows 7: An Introduction, Orientation, and How-to for Using Windows 7,
Sticking with Windows XP—or Not? Why You Should or Why You Should Not Upgrade to Windows 7,
and *That Does Not Compute!*, brilliantly drawn cartoons by Jim Whiting for really stupid gags by Jack about computers and the people who use them.

Wally Wang's Apple Farm

"Opinions, methods, and techniques about and for Apple products and devices." by Wally Wang

A Tale of Two CEOs; More iWatch Clues; Virtual Legos; Spotting Trends Overseas; Film Shot Entirely with iPhones; More Apple Patents; The Death of Windows XP; Define a Minimum Font Size.

At one time, T-Mobile was the smallest carrier in the United States with the least amount of coverage and the fewest number of subscribers. Slightly above T-Mobile was Sprint as the third largest carrier right behind the two giants in America, Verizon and AT&T. Then T-Mobile's CEO, John J. Legere, decided to eliminate the pain points that customers complained about for years.

First, T-Mobile dropped tacking on additional fees for everything such as charging extra for text messages that cost carriers virtually nothing to send. For a flat fee, you got unlimited calling and texting while other carriers like AT&T only gave you a limited number of text messages every month. The moment you exceeded that limit, you had to pay extra per text message, even if your text message was as simple as "OK."

Next, T-Mobile dropped the requirement that you had to wait two years before upgrading your phone. Then T-Mobile removed the subsidies that kept prices of the iPhone so low.

Most carriers charge you extra to pay for your smartphone, but once it's paid off, they continue charging you extra. T-Mobile lets you pay extra for your smartphone, but as soon as it's paid off, your monthly bill drops as well.

By simply addressing the pain points that people often complain about with wireless carriers, T-Mobile started attracting subscribers instead of losing them. With more subscribers, T-Mobile could afford to improve their network so their coverage wouldn't be as sparse as before.

While T-Mobile has been making it easier and cheaper for customers, what has Sprint been doing? So far, nothing. By making their service inexpensive and attractive, T-Mobile makes it easy for customers to switch to T-Mobile. By doing nothing at all, Sprint gives people zero reasons to switch or sign up with Sprint.

The job of a CEO is to lead and T-Mobile's CEO is doing that while Sprint's CEO (along with the vast majority of other CEOs) are not. By offering nothing different from Verizon or AT&T while having less coverage, Sprint gives no one a reason to use their services. Despite their lesser coverage, T-Mobile gives people lots of reason to switch to T-Mobile.

When you see such stark differences in CEOs of two similar companies, you have to wonder why the board of directors at Sprint tolerates mediocrity. Most likely because Sprint's board of directors is also filled with mediocrity.

To replace their equally ineffective CEO, Microsoft plans to make Satya Nadella their new CEO. Satya led Microsoft's enterprise division and has been with the company for the past twenty-two years. Whether Satya can fix Microsoft's dysfunctional behavior that thinks scrambling user interfaces every version is a form of innovation remains to be seen, but almost anyone will be better than Steve Ballmer. A chicken randomly pecking a piece of paper could probably have made better choices in the past than Steve Ballmer.

With new leadership at Microsoft, the company actually has a chance to develop products people might want instead of products that people have to fix with add-ons (getting Classic Shell or Start 8 to fix Windows 8 or getting Classic Menu to avoid the Ribbon interface in Microsoft Office).

Can Satya or anyone change Microsoft's tendency to increase complexity for no reason and call that innovation? We all know Steve Ballmer couldn't do that, so anyone other than Steve Ballmer will offer a sliver of hope.

In the meantime, Microsoft keeps promising to fix things in the next version over and over again. Microsoft better start changing quickly or else they'll risk sliding in irrelevancy like Sprint.

More iWatch Clues

Look at Samsung's Galaxy Gear smartwatch or the Pebble smartwatch and you'll see that they basically work as accessories to a smartphone while duplicating some smartphone features like texting or making phone calls. While that's fine, those features won't make smartwatches must-have items like an iPhone or an iPad.

That's why Apple is quietly gathering people to help it develop its own iWatch smartwatch. Recently, Apple hired Michael O'Reilly who used to work at Masimo as their chief medical officer and EVP of Medical Affairs. Masimo sells an iSpO2 Pulse Oximeter, which connects to an iPhone and reads pulse and oxygen saturation data from a person's finger.

Combined with past hires of people all associated with portable health monitoring devices, it seems clear that Apple's iWatch won't just be another smart watch that duplicates a smartphone or acts as an accessory to a smartphone. Instead, Apple's iWatch will likely be a

real-time health monitoring device that will have little in common with today's current batch of smartwatches.

Does anyone need a smartwatch that duplicates a limited number of smartphone features when they could just use a smartphone instead? Or do people really need a portable, real-time health monitor that can alert you to changes in medical conditions, which is something no existing device currently offers?

Innovation is never doing more of the same. Innovation is always about making it easy to do something difficult or impossible to do in the past. Apple leaves plenty of clues for rivals to follow. Instead, rivals simply slap together parts on a wrist band, call that a smartwatch, and wonder why their products don't sell. In the meantime, Apple recently met with the Food and Drug Administration (FDA) regarding mobile medical apps.

To get an idea what a portable, health monitor can do for you, download Cardiio for the iPhone or iPad. This app lets you track your calories so you can see how much energy you've been using.

Figure 1. Cardiio tracks your calories.

By using Cardiio daily, you can see how active you may or may not be. If you diligently use Cardiio over time, you can see a graph of your results that can show if you're gradually improving or slacking off.

Figure 2. Cardiio shows your progress over time.

As people in countries like Japan, Germany, and America get older, you can expect more people to be concerned about their health. A smartwatch that monitors health will likely be in demand. A smartwatch that poorly duplicates the features of existing smartphones will not. Can you guess which type of smartwatch will likely prove more innovative?

Virtual Legos

Legos has never been just a kid's toy. With a little bit of creativity, people have managed to create all sorts of interesting objects using Legos from a Lego robot that can solve the Rubik's cube to Lego machine guns with working parts.

In the old days, you were limited by your own imagination and the number of Lego pieces you owned. However, if you visit Google's Build With Chrome site, you can play with an unlimited

number of virtual Legos.

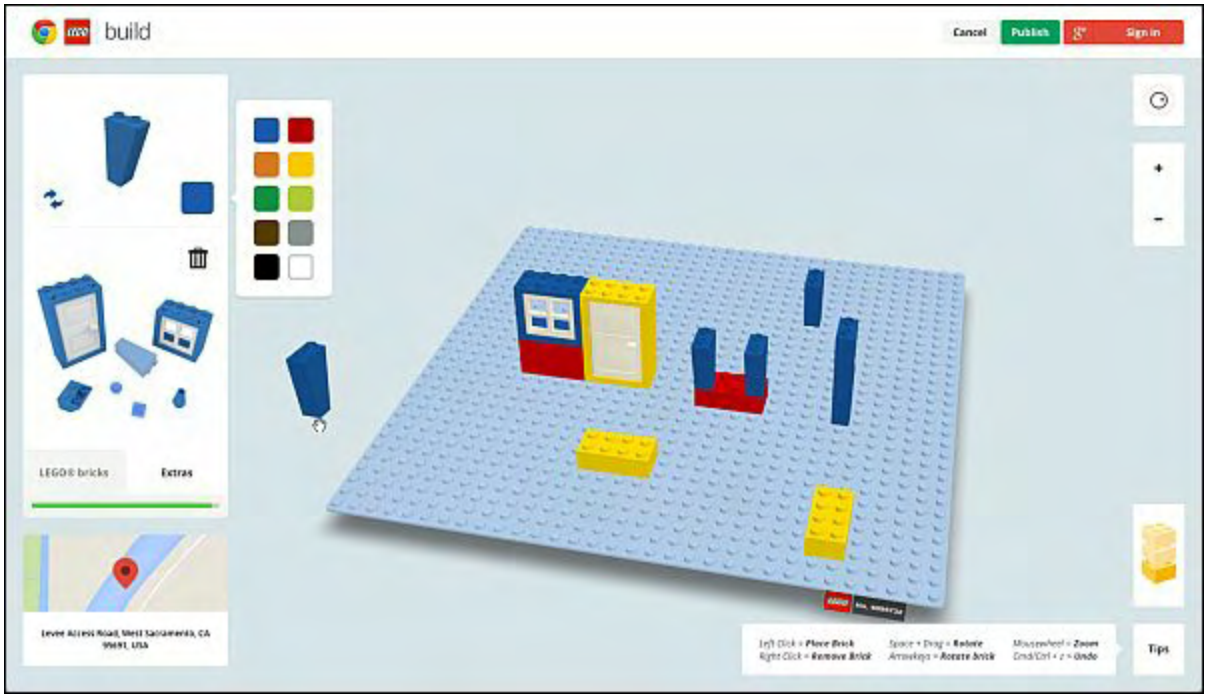


Figure 3. Build With Chrome lets you play with virtual Legos.

Build anything using Legos of different shapes and colors, then share your creations on the Internet with others. With virtual Legos, you have no reason not to build anything you want unless you lack imagination. If you lack imagination, there's still hope for you to become CEO of a major company and run it into the ground while earning millions in the process as your reward for incompetence.

Spotting Trends Overseas

Too many Americans have a myopic view of the world that centers only around the United States. Look in any major American newspaper and you'll rarely find any news about countries just right off the border like Canada and Mexico. You'd think that two major countries along our borders would have regular news that would be of interest to business in America, but if you read most newspapers, they act as if other countries don't even exist until there's a major war or riot to bring it to our attention.

For that reason, look overseas for trends that may wind up coming to America. Although most Americans ignore the rest of the world, many trends start overseas and then come here. To someone in Japan, the whole Pokemon and Manga phenomena occurred years before they hit the United States. If you had noticed these trends overseas first, you could have exploited its arrival when it reached Americans.

One early trend that's long occurred in Japan are QR (Quick Response) codes and the ability

to use your mobile phone as a wireless debit card to pay for products with the wave of your phone. Japan has been using this technology for years, yet it's starting to arrive in this country. Once again, if you had spotted this trend in Japan first, you would be well positioned to exploit it when it comes here.

If you want to see what's capturing the attention in China, check out the China Tech News site. To follow the Japanese, there's the Trends in Japan site. To read about a bizarre trend where people watch a Korean woman eat large quantities of food while she chats with them, visit this site.

By following overseas sites from all countries, you can spot trends before they hit the United States. You may need to visit overseas sites regularly to spot these trends, but the time spent searching for trends will pay off when you're one of the first people in America to take advantage of this trend long before anyone else in this country even knows it exists.

Film Shot Entirely with iPhones

To celebrate the 30th anniversary of the Macintosh, Apple has posted a short video showing how various people are using iPads, iPhones, and Macintosh computers in a variety of different tasks. Besides seeing the creative ways people are using Apple products, the film itself was shot entirely using the iPhone's camera.

When you see people using products creatively, it can spark your imagination on how you could use that same technology for your own unique needs. With so many people finding imaginative ways to use Apple technology, it makes you wonder why anyone would tolerate rival technologies that require you to become tech-savvy before you could even do anything first.

More Apple Patents

While critics complain that Apple doesn't innovate while never leveling those same complaints against other companies, Apple has quietly patented several potential new products such as a modular stylus.

In the past, Windows Mobile phones and Palm personal digital assistants used a dumb stylus, which was essentially a plastic pointer. Apple's patent is a smart stylus that could double as a laser pointer, as an audio recorder, or as a stylus for use with a touchscreen surface such as an iPad.

Apple Invents the Modular Stylus

FIG. 2

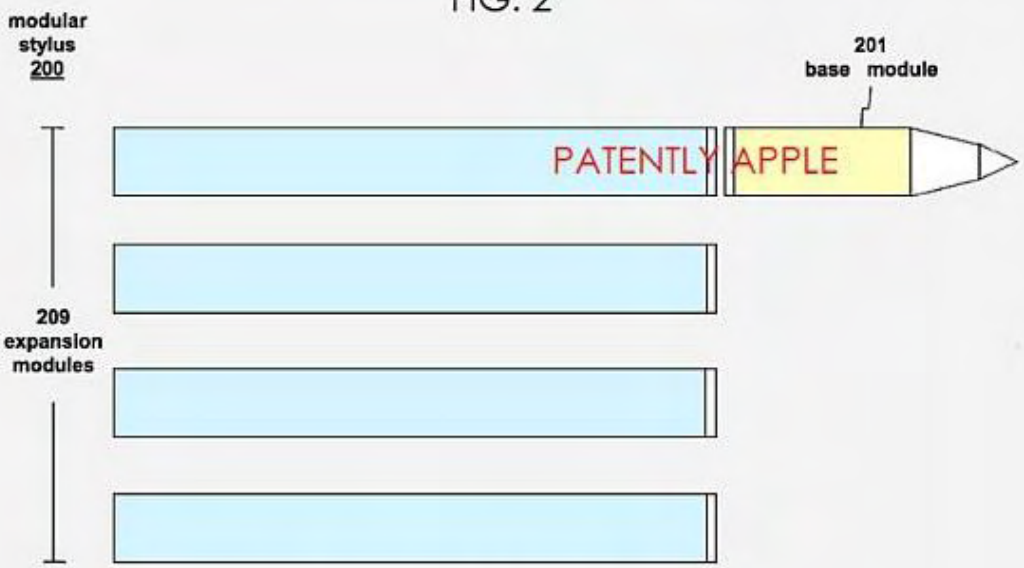


FIG. 3 BASE MODULE 301

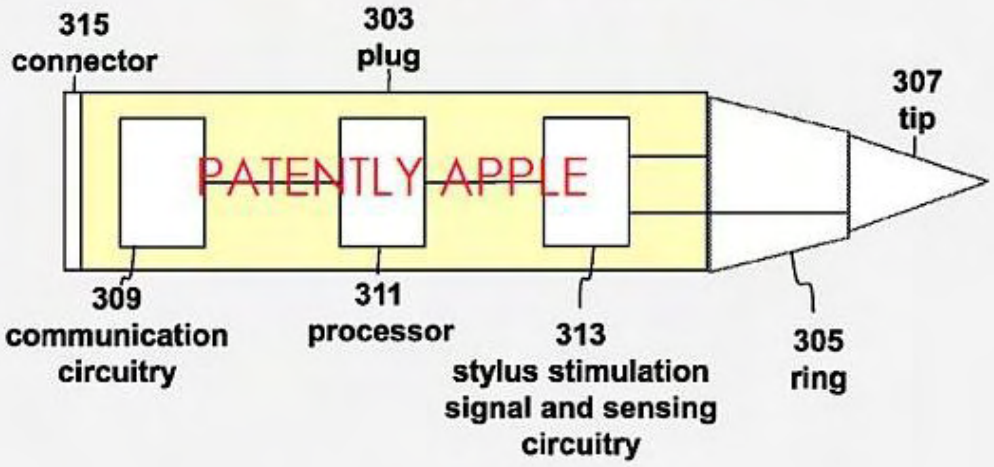


FIG. 4 BASE MODULE 401

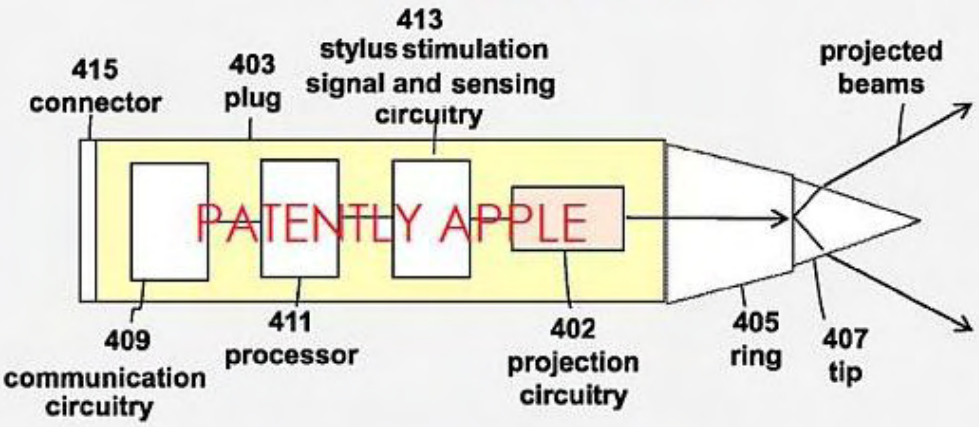


Figure 4. Apple's iPen patent.

Another patent involves a potential new health-related app to store information such as your blood pressure and heart rate, with the option of transmitting this information to a doctor or a hospital. This patent could either be related to the rumored iWatch or just an accessory related to the iPhone. In either case, it shows Apple's serious about using mobile computing to track health information in real-time.

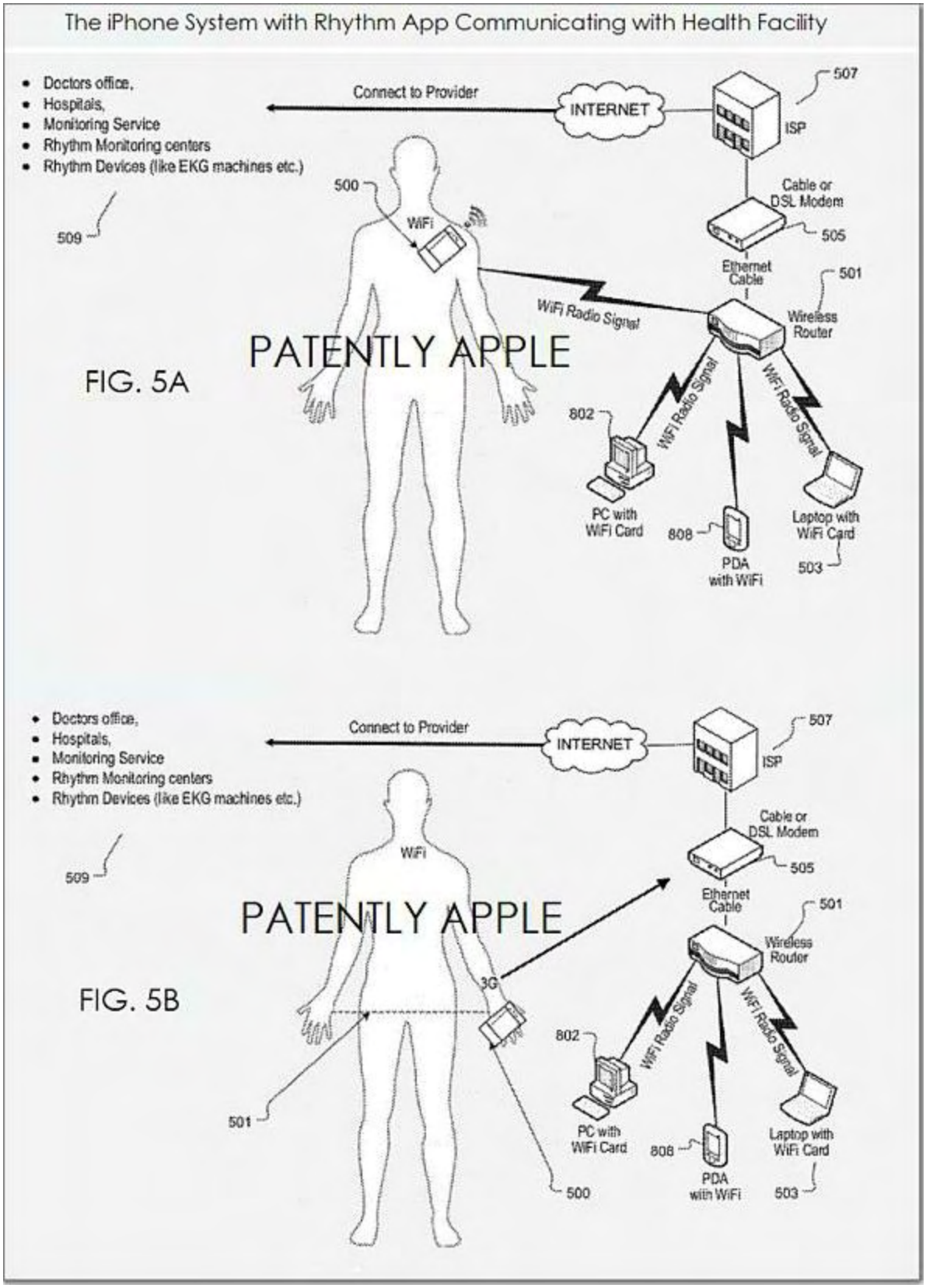


Figure 5. Apple's health app patent.

To keep mobile devices charged such as an iWatch or iPen, Appel has also patented a way to recharge devices through movement. That way you could charge your device overnight and

maintain power just by moving around. This would keep your device powered throughout the day, making it unnecessary to run to an electrical outlet every chance you can get, which is what most people have to do with their laptops.

In the near future, you can expect to see wearable computing directly connected to health monitoring, which is something that no other mobile computing device can do as easily. The wearable computing revolution is coming and it's likely that Apple will help lead the way for others to follow while they insist it's just a coincidence that their products just happen to look and work exactly like Apple's products.

The Death of Windows XP

Like it or not, Microsoft will soon stop patching Windows XP, so the risk of malware infection will dramatically shoot up without any further patches. If you're using a Windows XP PC that never gets on the Internet, there's no reason you can't just keep using Windows XP. Just make a complete backup of your hard disk and if anything should happen to your computer, you can just restore everything from your backup.

When asked how to deal with Windows XP's lack of support coming in April 2014, 37 percent of respondents said they'd just continue using Windows XP. Another 38 percent plan to switch to Windows 7 while only 5 percent plan to switch to Windows 8.

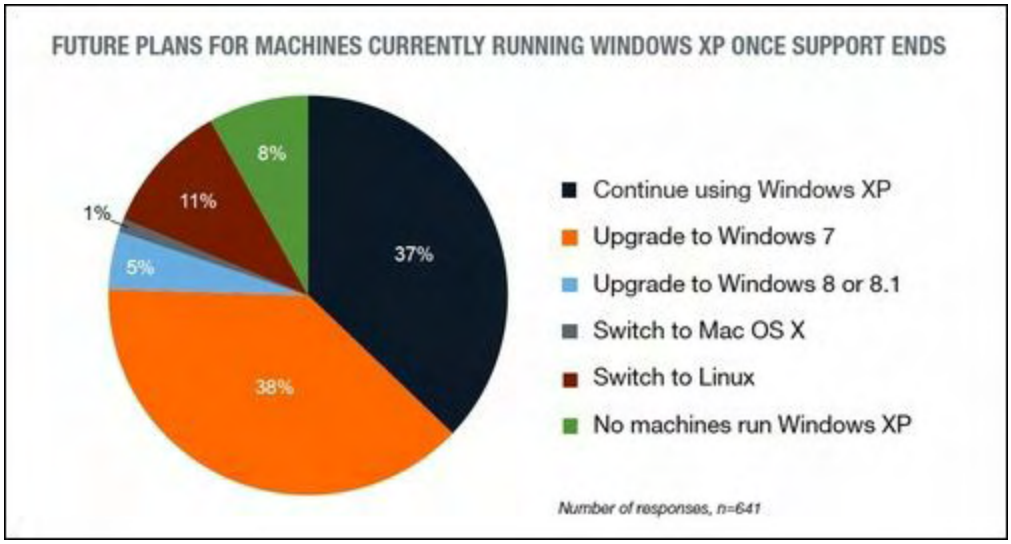


Figure 6. How people plan to deal with the end of Windows XP.

Surprisingly, only 1 percent planned to switch to OS X while 11 percent are considering Linux. When Windows XP works perfectly well, there's little reason to upgrade (beyond security issues) to anything else, even Windows 7. Will your programs running on Windows 7 make you suddenly more productive than if they were running on Windows XP? Probably not, which makes any upgrade from Windows XP relatively pointless from a productivity and cost effectiveness standpoint.

The best solution is to capture your Windows XP PCs as virtual machine files that you can safely run within Linux or OS X. That way you'll be able to run your Windows XP programs exactly the same as before but with the safety of Linux or OS X protecting you from malware. If your Windows XP virtual machine gets infected, just delete the single virtual machine file and replace it with a backup. Restoring a Windows XP virtual machine file takes about a minute compared to reinstalling a complete backup to a PC hard disk.

Windows XP simply proved that it's still good enough to work in today's environment. When such an ancient operating system is still more attractive to use than Windows 8 to the vast majority of people, that tells you all you need to know about the appeal of Windows 8.

* * *

If you use Safari and resize the window, you may find that text can look too tiny to read. To fix this problem, click on the Safari menu and choose Preferences. When a Preferences window appears, click the Advanced icon and select the "Never use font sizes smaller than" check box. Then define a minimum font size you want to use.

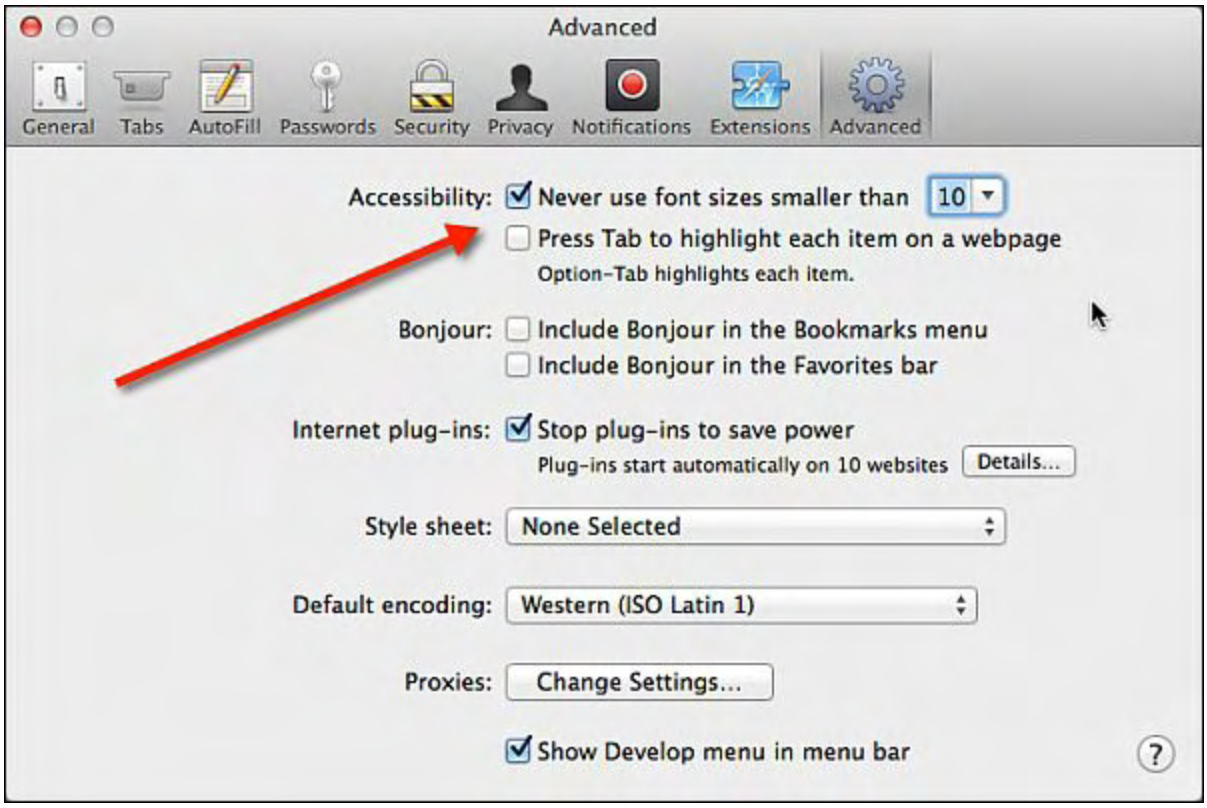


Figure 7. Safari lets you choose a minimum font size to use when displaying text.

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:

Microsoft Office 2013 For Dummies

Beginning Programming for Dummies

Beginning Programming All-in-One Reference for Dummies

Breaking Into Acting for Dummies with Larry Garrison

Strategic Entrepreneurism with Jon and Gerald Fisher

How to Live with a Cat (When You Really Don't Want To)

The Secrets of the Wall Street Stock Traders

Mac Programming For Absolute Beginners

Republican Fairy Tales (Children's Stories the 1% Tell About the Rest of Us)

The Zen of Effortless Selling with Moe Abdou

The 15-Minute Movie Method

Erotophobia (A novel)

Math for the Zombie Apocalypse

In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method," finding interesting news stories about cats at his site "Cat Daily News," giving advice to authors who want to self-publish e-books at his site "The Electronic Author," and providing the type of advice he wishes someone would have told him when he was much younger at his personal Web site. Wally can be reached at *wally@computoredge.com* or you can follow him on Twitter @wallacewang_com.

Editor's Letters: Tips and Thoughts from Readers

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

"Any Advantage to Modern "Apps" on a PC," "What Should I Do?" "End Of XP Support"

Any Advantage to Modern "Apps" on a PC

[Regarding Jack Dunning's January 31 article, "Windows 9 Rumors":]

While I am running Windows 8 (not 8.1, dislike many of things changed/disabled/removed in background as well as the newer search) since it was a cheap, $14.99 upgrade on this test machine I ran the previews on, I don't use any of the Modern apps at all. I did go to install/get some of the missing games when mentioned in *ComputorEdge*, but when I found that I had to give Microsoft my information (live.com e-mail) to do so, I skipped it.

FYI, I don't use one of the Start Menu restoration utilities, but often miss the Windows 7 Start Menu and linked lists (is that the name of being able to see many of the docs previously opened by an application?). I much prefer the Win 7 Start button/menu to the pin to Taskbar option but live with it.

So, while I admit I haven't used any of the apps (I use the term apps for smartphone type applications, vs. the full "applications" for regular desktop computers), is there any advantage to using any of them (and associated full screen required) over standard Windows applications I'm familiar with on a *non* touchscreen desktop?

Thanks,

-Rich

Rich, I think that you have used the appropriate definition for "app" as opposed to "application." Apps are more likely to be on the gadget level (although there are some pretty sophisticated apps for tablets) while applications tend to be workhorses. Whether any of the apps would be useful entirely depends upon what you need (or want). It's possible that you might find a useful tool, but most of them are already available for the Windows Desktop in some form. Personally, while I have installed a few apps in Windows 8...so far, there are none that I can't live without.

-Jack

What Should I Do?

[Regarding Jack Dunning's January 31 article, "Windows 9 Rumors":]

Your last paragraph "What Should I Do?," should include the option to run a Linux OS. Now's a great time to make the switch and *never* depend on/be disappointed by MS ever again!

-Mark Burton, Albuquerque, NM

End Of XP Support

[Regarding the January 24 Digital Dave column:]

Digital Dave is correct about the end of XP support being a non-event except for one thing. XP won't run with a browser beyond IE8 which now won't function well with modern Web sites. I've had to go Google Chrome until I upgrade to Win7.

-James Taylor, San Diego, CA

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