TOOLS of the TRADE

Lenovo Yoga 3 Pro

In an effort to survive the wave of 7" and 10" tablets that are getting lighter and faster, notebook manufacturers now offer a confusing array of alternative portable computers. There are notebooks, netbooks, subnotebooks, Ultrabooks, and even Chromebooks (a laptop built around an operating system that's built around a browser). What they all seem to have in common is a striving for a lighter, more compact, yet still powerful form factor. Some, like the new Lenovo Yoga 3 Pro, simplify the process of deciding between a tablet and notebook by incorporating the two into one. The Yoga 3 Pro is a super thin, very light computer with a beautiful, high-density touchscreen and a 360-degree hinge that lets you fold it into a working tablet. The screen is a 3,200 × 1,800 IPS (In-Plane Switching) display that's coated with a low-glare finish. The overall size of this latest Lenovo Yoga is smaller than its predecessor, but the screen has been maintained at a generous 13.3". The Yoga is classified as an Ultrabook, smaller and lighter than a subnotebook, with the typical low-power Intel Core processor, a solid-state drive, and unibody construction. The Yoga 3 Pro is actually the slimmest Ultrabook, only 0.5" thick and weighing 2.62 lbs. It's thinner and lighter than a MacBook Air. Lenovo says the "watchband hinge" provides six separate hinges for stability. When you fold back the screen, the computer can lay flat on a table with both the keyboard and screen facing up, or you can stand it in a triangle display mode or flip it all the way back as a tablet. The keyboard is disabled when you fold it more than 180 degrees. It has an Intel Core M 70 processor running Windows 8.1. There are two USB 3.0 ports and one USB 2.0 port, an SD card reader, and a micro-HDMI output port. Battery life is up to 7.2 hours.
www.lenovo.com/yoga3pro

Boogie Board Sync 9.7

Boogie Board eWriters from Improv Electronics are paperless notepads designed for writing and sketching with the added ability to save your work on your computer. The most recent version of these slates is the Sync 9.7, which will wirelessly transfer your notes to your Windows or Mac computer or your iOS or Android phone or tablet. The sync happens automatically when you activate the Sync App on your computer or device. The transfer is made via a Bluetooth connection. The notes that are synced can be directed to your Evernote, Facebook, Twitter, or e-mail accounts or just tucked away in the folder system you create on your computer. The connection for the earlier Boogie Board slates was via a wired USB connection, but this new system is much more convenient. As you write on the Boogie Board, you touch a button to save, and a blank page appears. You can save up to 1,000 pages before you transfer your work to your computer or Evernote cloud. The stylus is like a full-sized pen, and the feel is pretty close to that of writing on paper. The slate is black, and the pen strokes are a light gray, but when synced to your computer/tablet/phone, the images become black lines on a white "paper" background. The onboard battery will last approximately one week, and it takes about six hours for a full charge. It goes into sleep mode after about one hour of inactivity. In that mode, the battery will last up to 100 days.
www.myboogieboard.com

NewerTech Wireless Keypad

The creators of NewerTech's Aluminum Keypad relied on input from accountants to ensure best key-throw, feel, design, size, and connectivity for its new full-sized 28-key numeric keypad. Designed to complement the look of the Apple wireless keyboards, the

keypad easily attaches to Apple keyboards with a bracket. It works with all Bluetooth-compatible computers, laptops, and devices and features quick pairing and a range of up to 30 feet with automatic repairing. The 28 keys include delete, tab, navigation, and more. Power is provided by two AAA batteries, and the small power drain provides long life. The brushed aluminum model features white keys, and there are versions with black keys. International versions with illustrative black or white keys will be announced soon.
www.newertech.com

STM Studio Cover

STM Studio Covers for the iPad Air and Samsung Galaxy tablets provide lightweight and slim construction in a form that feels really good in your hands. You snap the tablet into the snug, hard shell bracket, and a soft lining surrounds and protects the screen and the back of the tablet while leaving the screen exposed. All the corners and edges have the same rigid drop protection as the outer cover, and cutouts allow access to all the ports, controls, cameras, and microphones. The front cover folds and has a magnetized flap that snaps shut when folded over. The same magnet lets you attach the cover to the back, creating the correct angle for typing or a stable stand for viewing videos. The viewing stand is more secure than the Apple Smart Cover. The STM cover also triggers instant on/off with opening and closing. Made in Australia, the cover comes in four colors and makes a nice step up from the standard Apple iPad Air Cover. The Galaxy model comes in red or black.
www.stmbags.com

Just Now

By Michael Castelluccio, Editor

Just as December has become a convenient vantage point from which to look back at the expiring year, January has become the traditional time for predictions and resolutions. But when do we get the chance to step on the brakes and just look around at where we are now? Well, this year we'll skip the New Year predictions about where technology will take us and instead take a few moments to step out and glance around the digital landscape for a closer look at what we're all plugged into right now.

CHANGE

As for the hardware in our tech ecosystem, the churn is everywhere, and it's as loud as ever—powerful enough to move even the largest forces. Take the Apple Corporation, for instance. Apple hasn't only pushed aside IBM and Microsoft, but it now possesses a market capitalization of $680 billion. Forbes.com points out that it's more than Microsoft, Amazon, Netflix, and Twitter combined, and the website wonders, "Can Apple be the first trillion-dollar company?"

Well, one counterintuitive element of Apple's massive presence is that it's almost certainly temporary. Recall that this corporation was facing bankruptcy in the 1990s when, ironically, Microsoft kicked in $250 million to save it from oblivion. Remember Compaq and the more recently receding giants Blackberry and HP? Or Nokia—the once, and relatively recent, undisputed master of the mobile universe?

As we watch Apple ascending like a planet-sized satellite on the horizon, there's a lesson in the cycle of empires, present and past: Nothing stands still. The Greek philosopher Heraclitus (born 535 BC) had a great metaphor to explain how the only thing that doesn't change is change itself. He said you can never step into the same river twice because it's constantly becoming something else. And so, there's a downstream for Apple

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where giants like Commodore International and Borland now flow away from our memory.

THE DIGITAL DIVIDE

As we look around, it isn't just the large corporate presences in the landscape. It seems that computers are now absolutely everywhere. Where once they used to be on our desks at work and somewhere in the basement at the bank, they now are packed in our briefcases, in our pockets, on our wrists, embedded as chips in our pets, in our televisions, and in our appliances—not to mention the wide digital currents of countless networks that flow silently around us and that we wade through without a notion of whose cellular traffic or Internet packets are passing through us. There are few places left on the planet where computers and their networks aren't ubiquitous, and this presents a few additional problems.

Usually when you think of "the digital divide" you think of the cyber haves and the have-nots. But there's another kind of separation as well. We might be cocooned by our personal devices, but we're further from, rather than closer to, understanding how these devices work and how they're working on us.

Granted, we have been surrounded by machines since the burgeoning of the Industrial Revolution, but mechanical devices are simpler to understand than computers. With computers, the chips, circuitry, and programmed instruction sets are a little more opaque as the combined effort of electrical engineering and computer programming. Not many stop and wonder, "Where's the cloud, and what's it doing when I get its attention on my phone?" Figuratively and literally, that kind of question is beyond the reach of most. And as we get closer to our devices, seemingly never without them, we seem to be getting further from understanding how they manage what they do for us.

But isn't that the way it has always been since we started importing machines into our daily lives? And who needs to know how your watch or even your cellphone works? If it breaks, you aren't going to fix it yourself.

Well, with computing, it's a little different. Computers have the potential to be smart. Some would extend that potential to include "intelligent." In their current state, our digital machines can solve complicated math and mechanical problems, and they even have begun doing things like recognize patterns, translate languages, and beat the best human competition in chess and at *Jeopardy!* What we see when looking around the digital landscape today are glimmers of what might be classified as human-like intelligence. There are computers that can write their own programs to correct and improve themselves. There are programs and satellite systems that produce accurate weather intelligence that's essential and occasionally lifesaving. Thousands of new robots are now buzzing all over Amazon warehouse floors, while their cousins are in the air over war zones delivering deadlier packages.

Computers will be getting smarter. Just how smart is unknown, but if their intentions ever become their own, then the digital divide will become critical. Today, there are those who insist that machine intelligence has limits well short of human capabilities. Others, like the Oxford physicist Stephen Hawking, worry about artificial intelligence. In an interview, Hawking told the BBC, "I think the development of full artificial intelligence could spell the end of the human race. Once humans develop artificial intelligence, it will take off on its own and redesign itself at an ever-increasing rate. Humans, who are limited by slow biological evolution, couldn't compete and would be superseded."

IS ANYTHING SECURE?

One last key feature of the current landscape is cyber security or, rather, the lack of it. In a recent *New York Times* article on hacking, Nicole Perlroth reports a 10,000-fold increase in the number of new digital threats over the last 12 years. She concludes, "There are only two types of companies left in the United States: those that have been hacked and those that do not yet know they have been hacked."

Last year, 552 million people had their identities stolen, according to Symantec, and as more and more of the vital infrastructure of the country goes online, there's a consequent increase in the risk to all.

There are measures that can be taken, but it might take an event bigger than the Home Depot attack to move people to act. Perlroth quotes former defense secretary Leon Panetta, who said the catalyst will probably have to be a "cyber-Pearl Harbor."

Whatever the inspiration, there are three avenues that could be taken by companies and individuals. The first is to start using stronger passwords and/or biometrics like fingerprint or retina recognition. The second is to encrypt whatever you need to save or send to others. And the most important for companies is to begin to build in layers of protection and give up the current reliance on patching after an attack has taken place. Also, companies have to identify the resources that need the greatest protection.

Welcome 2015 and wherever it's likely to take us. **SF**