

# TOOLS of the TRADE



September ushered in two significant new directions for the two bestselling mobile phones—Apple’s iPhone and Samsung’s Galaxy Note. In California, Apple unboxed two new iPhones: the 6 and the 6 Plus. At the 2014 IFA (the world’s leading trade show for consumer electronics) in Germany, Samsung unveiled the first rounded flex screen on a mobile. Apple also finally debuted its first Apple Watch.

## iPhone 6 and 6 Plus

For those with any doubts about a possible market for larger iPhones, within the first 24 hours the iPhone 6 was offered, four million were sold, breaking the previous record of two million iPhone 5s sold on the first day in 2012. The larger iPhone 6 Plus was listed as out-of-stock only hours after the order channels were opened. The obvious

attraction to both iPhones is the larger Retina HD screens. The iPhone 6 has a 4.7" diagonal display with 1,334 × 750 pixel resolution at 326 pixels per inch, and the iPhone 6 Plus measures 5.5" with 1,920 × 1,080 pixels at 401 pixels per inch. The new bodies are the thinnest iPhones yet, measuring 0.27" and 0.28" thick. Both have a fingerprint identity sensor built into the Home button. Also new is the ability to pay with Touch ID in stores and in apps with the new Apple Pay function. All you do is hold your finger on the Touch ID (Home button) and wave it near the store’s contactless reader. The phone’s Near Field Communication antenna sends the information, and as the transaction is completed, you feel a vibration and hear a tone. Along with the Touch ID sensor, there’s a new barometer, a three-axis gyroscope, accelerometer, proximity sensor, and ambient light sensor. Both models have the new A8 processor chip that has 64-bit desktop-class architecture, two billion transistors, and up to 50% more energy efficiency than the previous A7 chip. Both phones run on the new iOS 8.

Battery life for the iPhone 6 provides up to 14 hours of 3G talk, 10 days of standby, and 10 hours of 3G browsing. The iPhone 6 Plus offers up to 24 hours of 3G talk, 16 days of standby, and 12 hours of 3G browsing. Both cameras are improved for taking photos and videos and for making Face Time calls. Wi-Fi speeds also are improved up to three times faster than previous iPhones. [www.apple.com](http://www.apple.com)

## Samsung Galaxy Note Edge

The current owner of the phablet niche, the Samsung Note, debuted its latest version with a feature unique to its line. The right edge of the new Samsung Galaxy Note Edge curves around the case into the back of the body. This is the first large-scale rollout of a curved screen on a mobile. Because the curve is de-

signed to allow right-handed users to wrap their fingers around what essentially is a row of tabs for quickly opening common functions and programs, some critics have complained about the disenfranchisement of the 7%-10% of the population who are left handed. One solution is to invert the phone and adjust to a Home button on top. The screen on the Edge is just slightly larger than the new iPhone 6 Plus—a tenth of an inch, actually. The AMOLED screen measures 5.6" diagonally and is an impressive 1,440 × 2,560 pixels. The second display on the edge of the curved screen occupies about 160 pixels. This edge works separately from the main display, so you can get a quick look at the time and weather while it’s sitting on the nightstand. Or you can use one of Samsung’s widgets that might include time, weather, Twitter, news updates, or notifications. With the main screen off, just a swipe of the edge provides access to whatever you’ve loaded there. You can also access controls for video playback on the edge while the rest of the screen is taken up by an edge-to-



# TECH FORUM

## Is Anyone Watching the Clocks?

By Michael Castelluccio, Editor



edge image. When it's available later this month, the Edge will have many of the same features of the Galaxy Note 4. It will have 3GB of RAM and be available in both 32GB and 64GB models. You can add up to 128GB with the micro SDXC slot, and there's a 16-megapixel rear-facing camera and 3.7-megapixel front-facing one. Running on the Android 4.4.4 KitKat operating system, power is provided by a user-replaceable 3,000mAh battery. [www.samsung.com](http://www.samsung.com)

### Apple Watch

Apple finally released its version of the wireless computerized timepiece. Simply named Apple Watch, there's a bewildering variety of style forms available that includes three general classes—the Watch, Watch Sport, and an 18-karat-gold Watch Edition. There are two case sizes (38 mm. and 42 mm.), six different metal bodies (stainless steel, aluminum, gold, black stainless steel, space gray aluminum, and rose gold), and six different bands ranging from metal links to soft plastic. Add the countless watch faces available, and you

have a watch for almost any use (heart monitoring, texting, telling time) and any occasion. To avoid obstructing your line of sight, you don't always have to tap or swipe the screen with your finger. Instead, two dials on the side control scrolling, zooming, and selecting, which allow you to view the full screen. The interface includes three monitors on the back of the watch that transmit gentle taps to your wrist to get your attention as well as to monitor input like your heart rate. Maps, weather, traffic, notifications, texts, sports and health monitoring, Siri, and GPS are all included—Apple Watch coordinates its digital intelligence and functions with your iPhone, and once the developers get hold of the Developer's Kit, the sky is the limit on Watch apps in the App Store. The new Apple Pay digital wallet system lets you load and use debit and credit cards. A built-in speaker allows you to answer incoming calls and facilitates dictating messages or notes. You charge the Watch wirelessly with a disk that attaches magnetically to the back. [www.apple.com](http://www.apple.com)

With Apple's recent announcement of the new Apple Watch, it has finally joined the ranks of Samsung, LG, and others, beginning a final push away from analog timekeeping to digital. It's perhaps an appropriate time, therefore, to start asking questions about whether and how our perception of time might be changed by the new smart watches. After all, it took a while before we caught on to the differences between reading on paper and reading on glass or plastic. Some studies now seem to show we remember more of what we read in print while others indicate we are reading much more now than before digital content significantly expanded what's available. Well, as that investigation continues, it might be good to open a parallel discussion about computerized timepieces and how they might be changing us.

Digital time might be a little more complicated to evaluate than our evolving literacy. First, it's important to note that not everyone in the world perceives the passing of time in the same way. The ancient Greeks, for instance, defined time as the measure of motion. A sundial calibrated the sun traveling across the sky. Contemporary physicists, on the other hand, will tell you that time is actually a dimension, which would make it somehow simultaneous and not really sequential. A rough guess might have been good enough for the Greeks, but not so today for the more finicky people, like those at the National Institute of Standards and Technology (NIST). These horologists prefer clocking vibrating cesium atoms, carefully noting a resonance frequency that is accurate to one second in 20 million years. And somewhere in between are the rest of us. Do we really need accuracy pared down to billionths of a second? Not if we're making toast. But that kind of accuracy, or something like it, will be the next thing we strap to our wrists as our new digital timepieces connect and maintain a wireless link to those insanely accurate atomic clocks at the national labs.

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Putting aside the big questions like whether time is a single moment or a flowing stream, there are cultural differences in the way we all perceive time. British linguist Richard Lewis recently wrote an interesting piece about this in *Business Insider*. He broke down the international landscape into three basic groups. Those in the West, he says, see time linearly, and he calls them the linear-actives. They plan, schedule, organize, partition their time, and pursue action chains. They try to control the passing of time. They check their daily schedules and then try to do one thing at a time.

In the United States, there's an almost moral dimension to this approach, perhaps reaching back to its Calvinist roots. Americans sanctify timekeeping, Lewis explains. "In the U.S. you have to make money, otherwise you are nobody... [And] for an American, time is truly money," they can't tolerate being idle. He cites their strange expressions about "wasting, spending, budgeting and saving time." It's as though linear-active people believe they can control the flow of time by interjecting their own scheduling into its stream.

The national archetypes that Lewis uses to describe the linear timekeepers are Americans, the Swiss, and Germans, but he also includes the Anglo-Saxon world in general, including the Netherlands, Austria, and Scandinavia. All have a similar linear vision of time and action.

Linear-active types are consequently "monochronic." They concentrate on doing one thing at a time, and they do it within a fixed schedule. That, Lewis explains, creates a sense of efficiency. They also are generally uneasy with periods of time passing without something being done or something being decided. "The past is over, but the present you can seize, parcel and package and make it work for you in the immediate future."

The other two general classes of human time observers are what Lewis calls the multi-active and the reactive. Multi-actives (Southern Europeans for instance) find "the more things they can do at the same time, the happier and more fulfilled they feel. They organize their time (and lives) in an entirely different way from Americans, Germans and the Swiss." Lewis says the multi-actives "consider the present reality to be more important than appointments." Human relationships trump scheduled events for multi-actives.

The reactives, seen in some Eastern cultures, view time "as neither linear nor event-relationship related." They don't see cyclical time as a scarce commodity. "There seems to be an unlimited supply of it," and humans exist within and are connected to that vastness.

### DIGITAL TIME AND THE LINEARS

So let's go back to the original question. How will our new digital timepieces affect us and our careful parceling out of the passing days?

On the surface, a watch like the new Apple device appears to be the perfect accomplice for linears. There isn't any anxiety about losing time because of a slow watch—these things are wirelessly locked onto atomic time. The Apple Watch has a calendar that will parse your days and daily schedules with reminders—not just popping up on the screen a half-hour before the event's begun, but also silently tapping you on the wrist to get you to look at that next scheduled task. All the organizing apps on your smartphone will be available in bewildering lists of endless to-do apps, alarm apps, and birthday apps with lists of suggested gifts—text reminders, beeps, and taps. And unlike your phone, which you can set down and sort of forget at times, this little assistant is strapped to your wrist.

But there are two drawbacks. Lewis described linear-actives by the way they work monochronically. But if you've ever read any of the analyses of how computers have a tendency to fracture our ability to concentrate and stay on one task, then this "do-one-thing-at-a-time" approach for linears might be challenged by the Apple Watch. You can see the evidence of this digitally-induced attention-deficit-disorderliness on almost any Web page. Read a newspaper article on your phone, and there are hyperlinks, blue words, and underlined phrases that can lure you away on a path that contains additional digressions. What if the icons surrounding your Planner Plus app on the Apple Watch are for a game, your music and video player, and an audiobook reader? Will linear-actives become ADD-stressed users like so many of the tablet junkies? The first games have already been written for the Apple Watch, and Electronic Arts is in full experimental mode on the platform.

The second drawback was added by Apple in a determined effort to make this device a primary channel of communication. The company has even added human touch to the usual auditory and text connections. Private conversations can happen at any time of the day and anywhere, further tempting linear-actives away from what they're supposed to be doing next.

With these two significant distractions also now wired into our new timepieces, are we on a slow slide sideways toward multi-active contentment? Maybe the investigation should include the larger question: Which is more practical, linear-active, multi-active, or reactive? **SF**