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distro

051812 #41

SUCCESS *by* DESIGN

*HOW TWELVE SOUTH
MADE IT BIG
BY STAYING SMALL*



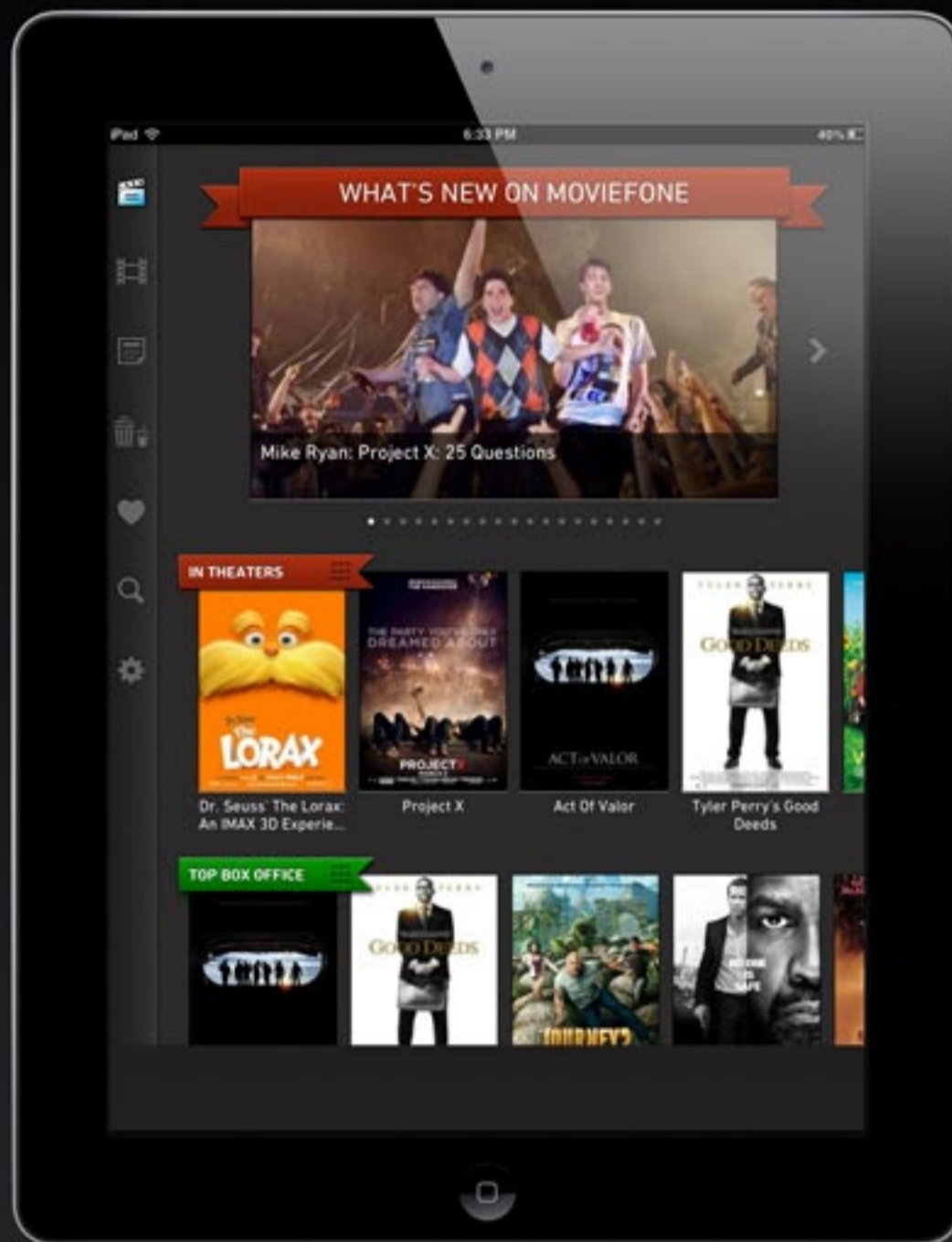
GETTING UP TO
SPEED WITH SPRINT'S
EVO 4G LTE

IS TIVO'S PREMIERE
XL4 THE NEW
BREAKTHROUGH BOX?

TALKING TECH
WITH CHRISTOPHER
H. BIDMEAD

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05.18.12

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By Dustin Harbin



Facebook Changes its Privacy Settings

Editor's Letter

As much as we hate to admit it, far and away the biggest tech story of the week is the Facebook IPO. The company that contains all of your private information has now gone public, and if that makes you nervous you aren't alone. GM took this opportunity to pack up all its advertising on the social networking site and storm off in a huff — before looking back sheepishly to see if anybody else would follow suit.

They wouldn't.

In rather less public news, speculation about Apple's next round of MacBook Pros picked up again amid a pair of reports. The first, courtesy of a supposed benchmark result, indicated that the next Pros would feature Intel's Ivy Bridge processors. No shocker there, but it's the second rumor that's more intriguing: a thinner 15-inch model with a Retina-caliber display and USB 3.0 port of all things.

The inclusion of USB 3.0 is a bit curious to say the least, with Apple's big push for Thunderbolt, but USB 2.0 and DisplayPort have certainly survived side-by-side for long enough, so perhaps these two next-gen interfaces can live in harmony too.



The relationship between Apple and Kaspersky Lab this week became rather less than harmonious, however. If you're unfamiliar with Kaspersky, it's a Russian computer security company that is one of the world's biggest anti-virus software makers. This week, the company's CTO Nikolay Gre-

bennikov indicated that the company was working with Apple to fortify OS X and went so far as to say "Mac OS is really vulnerable."

That sounded rather... *strong* for a partner of Apple to say and so we reached out for confirmation. Sure enough, Kaspersky (eventually) responded to us and stated that the quote was "taken out of context," which, if I'm perfectly honest, is a bit hard to believe. Nikolay issued a *new* statement, this time saying that the company was indeed investigating OS X, but that it was doing so "independently of Apple." He also refrained from making any claims about purported weak spots in the OS.

One company that is undoubtedly vulnerable, but on a very different level, is RIM. The American Consumer Satisfaction Index included the BlackBerry pusher in its ranks for the first time where it took the title of "least satisfying" compared to its major competitors. Both Motorola and Samsung suffered declines while

The hope is that [Knowledge Graph] will evolve Google's search results into something more than a random collection of links. Next step: Skynet.

Nokia managed a slight increase. Top of the list? Apple, with the iPhone delivering an 83 percent satisfaction index.

The index also ranked wireless providers, where all of the big three sit within a few points of each other. That's about to change for Verizon, though. CFO Fran Shammo made it abundantly clear that the company will be moving everyone to "family" data plans going forward, with one big bucket of data for all your devices to pull from.


Not having separate contracts for separate devices sound great, but Shammo indicates that if you're currently on a grandfathered-in unlimited data plan (as I am) and you want to have an LTE family data plan (as I will) you'll necessarily have to move to a tiered data pricing plan. It remains to be seen what happens to those who already have unlimited data on LTE and who don't want a shared data plan, but we have to imagine Verizon will find a way to get what it wants. Companies usually do.

Google unveiled what it calls the Knowledge Graph on Wednesday, a new way for

the engine to connect related things. The hope is not only to provide search results for the basic text typed by you, but to also put those search results in a proper context. Right now there's not a lot to it — search for a famous person and you'll get a panel showing some light biographical information and related links — but the hope is that this will evolve Google's search results into something more than a random collection of links. Next step: Skynet.

Finally, in some sad news, upstart e-reader manufacturer Plastic Logic is giving up the fight for retail reader domination. The company, which never seemed to stand a chance against the Kindles and Nooks of the world, is getting away from the reader game and is instead focusing on what it does best: innovative displays. The company has a flexible, color e-reader display that could finally make for a reader with chromatic chops and, now that the company won't be competing with anyone, it's free to offer up that display to every interested party. Any takers?

In this weeks Distro, Darren

Murph takes you on a trip to visit Twelve South, makers of the BookBook case, to see just how they manage to stay small but successful despite a world of knockoffs. Ben Drawbaugh gives a full review of the quad-tuner, app-enabled Tivo Premiere XL4 and we also give you our take on the long-winded HTC EVO 4G LTE for Sprint. Ross Rubin looks at the vastly different but equally tragic status of RIM and Nokia, Ludwig Kietzmann breaks down Max Payne 3 (a game I wish I had more time to play) and Doctor Who script editor Christopher H. Bidmead travels through our Q&A. There's more recommended reading, a new comic from Dustin Harbin and our first hands-on with the incredibly slinky Lenovo ThinkPad X1 Carbon Ultrabook. It's all waiting below, so make like Minecraft Steve and dig in. 



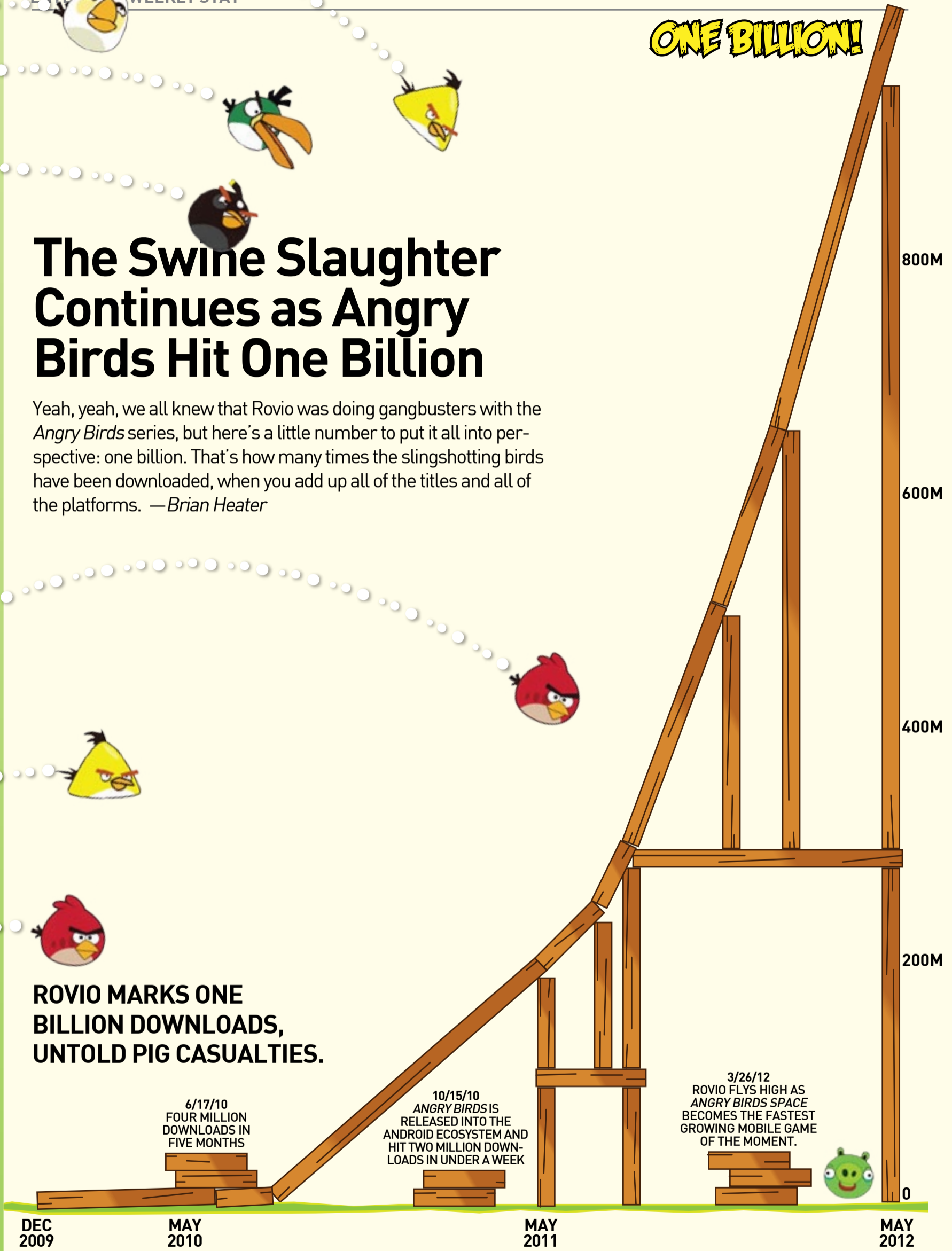
TIM STEVENS
EDITOR-IN-CHIEF,
ENGADGET

ONE BILLION!

The Swine Slaughter Continues as Angry Birds Hit One Billion

Yeah, yeah, we all knew that Rovio was doing gangbusters with the *Angry Birds* series, but here's a little number to put it all into perspective: one billion. That's how many times the slingshotting birds have been downloaded, when you add up all of the titles and all of the platforms. —Brian Heater

ROVIO MARKS ONE BILLION DOWNLOADS, UNTOLD PIG CASUALTIES.



SOURCE: ROVIO

CLASH OF THE TROUBLED TITANS

Switched On



BY ROSS RUBIN

Ross Rubin (@rossrubin) is executive director and principal analyst of the NPD Connected Intelligence service at The NPD Group. Views expressed in Switched On are his own.

Fans of the Lincoln-Kennedy coincidences can appreciate similarly contrived dynamics in comparing Nokia and RIM (neither of which, contrary to the occasionally expressed opinion, has been murdered despite “Apple and Android” consisting of three words and 15 letters). Both companies are former smartphone market share leaders — RIM in North America, Nokia globally. Both have had success in developing economies with efficient operating systems that they plan to support indefinitely. Both developed reputations for high build quality and good antenna design, and both were initially dismissive of the iPhone as they continue to see Android as the path to commoditization. And after precipitous market share declines, both hired new CEOs. Nokia, a European company, hired a CEO raised in Canada. RIM, a Canadian company, hired a CEO raised in Europe. These men now struggle with keeping their companies part of a viable alternative to the two dominant marketplace offerings. ¶ Since embarking on their new operating system strategies, though, there have been many contrasts. While Nokia hired an outsider as a CEO, RIM hired an insider. Nokia decided to adopt a licensed OS; RIM decided to build its own (based largely on acquisitions). And now that both the 2012 Nokia World and BlackBerry World conferences have passed, there’s an opportunity to assess their comeback progress.

Speed (Advantage: Nokia)

In justifying its decision to sideline MeeGo to lab rat status, Stephen Elop noted that the company was on track to deliver only three MeeGo-powered handsets by 2014 despite having already shipped the lame duck N9. Since switching teams, though, it has begun to roll out Windows Phone globally in four different chassis and has made the biggest US car-

RIM has made a better case for true multitasking than we've seen from competitors.

rier push in at least the last five years. RIM, on the other hand, has offered only a peek of BlackBerry 10 on prototype hardware. Even if the company were to ship it tomorrow, much less stick to its “later this year” time frame, RIM would be the last major smartphone vendor to respond to the 2007 debut of the iPhone with an operating system transplant.

Ecosystem (Advantage: Nokia)

In 2010, as the iPhone was beginning to surge past the BlackBerry, Steve Jobs offered prescient criticism to his competitor on an Apple earnings call, saying that RIM had to “look beyond their area of strength and comfort, into the unfamiliar territory of trying to become a software platform company.” In contrast, while Windows Phone may be playing catch-up to Brand A and Brand Other A, Microsoft knows a thing or two about developer programs and ecosystems. While the company has eased up on its message of integrating with other Microsoft products and services (an uneven proposition depending on the franchise), its Xbox Live support is

a nice perk for avid gamers on Microsoft's home consoles and its mobile OS should get a recognition boost from the overlay of the Metro mural across Windows 8 PCs set to begin later this year. While Nokia still has higher market share than its Waterloo-based rival globally, RIM still has higher share than Nokia in the US.

While BlackBerry World saw a commitment from Gameloft to support BlackBerry 10, there weren't many other announcements of support from popular consumer app providers. Rather, RIM highlighted support from cross-platform development environments aimed at bringing what in some cases is shlockware over from other platforms.

Differentiation (Incomplete)


At the debut of Windows Phone, Microsoft emphasized that the Windows Mobile successor was different than the incumbents, but the quadrangles filling its home screen winked on the faces of devices that bore little distinction when compared to Android devices from the same companies. Early Nokia flagships such as the N800 and, to a

lesser extent, the N900, have changed that equation somewhat. Ecosystem-loyal Nokia has done little to tweak the interface of Windows Phone despite its license to do so. It has decided instead to differentiate with apps and services, such as the well-implemented Nokia Drive. But while Nokia Drive may give its developer an advantage over other Windows Phones, its advantage is mitigated versus Android, where nearly all handsets ship with the serviceable Google Navigation.

In contrast, RIM focused little on differentiation per se in providing its first public glimpse of BlackBerry 10, with only a passing reference to the speed bumps of the iPhone's Home button and Android's Back button. Rather, it spoke of productivity, mobility and flow. The apparent seamlessness, fluidity, and HTML-friendliness of BlackBerry 10 have led some to compare it to early demonstrations of the now nascent webOS; there are some valid and disconcerting parallels. However, RIM is in far better financial health than Palm was at the launch of webOS and, based on what we've seen so far from QNX on the PlayBook, there's cause for optimism that RIM's new OS will offer far better responsiveness than webOS ever did. Perhaps reflecting the strong foundation of its underlying plumbing, RIM has made a better case for true multitasking than we've seen from competitors.

In the marathon that is the smartphone wars, Nokia may not have won

Ecosystem loyal Nokia has done little to tweak the interface of Windows Phone despite its license to do so.

the most recent lap, but at least it has run it. Choosing Windows Phone has allowed the handset company to manifest its comeback approach faster than RIM while letting Microsoft pick up the brunt of attracting developers. But RIM claims no regrets, noting that it is more convinced than ever that it took the right path in going it alone. When compared to today's menu-driven smartphone experience, BlackBerry 10 may be an ocean away. But RIM is designing that ocean so that BlackBerry users in particular will want to dive in. 



Afghan Box Camera

Afghanistan remains one of the few places to find practitioners of kamra-e-faoree, the 75-year-old art of hand-made wooden camera photography. With their numbers dwindling due to the influx of modern smartphones and bans on picture-taking under Taliban rule, groups like the Afghan Box Camera Project have stepped in to help preserve the legacy left by these artisans.

*Top: AP Photo/CP, Kevin Frayer
Right: AP Photo/Kamran Jembreili*



Visualized

»» HANDS-ON

Our firsthand impressions of just-announced and soon-to-be-released devices



LENOVO THINKPAD X1 CARBON



PRICE N/A
AVAILABILITY
Summer 2012

THE BREAKDOWN The X1 has grown up into a 14-inch affair, now being marketed as an Ultrabook.

Yes, that laptop you see is called the ThinkPad X1 and yes, it's the successor to the X1 we reviewed around this time last year. Despite gaining an inch in real estate, though, it manages to be thinner and lighter than its predecessor: 3 pounds and roughly 18mm (.71 inches) thick, down from 3.7 pounds / .84 inches. It packs an Ivy Bridge processor, coupled with Intel's vPro technol-

ogy and (we assume) integrated graphics. Like the last-gen model, it makes use of Lenovo's RapidCharge, which allows the notebook to re-charge up to 80 percent capacity in 30 minutes.



SOUNDER IOS APP



PRICE

Free & \$0.99 Versions

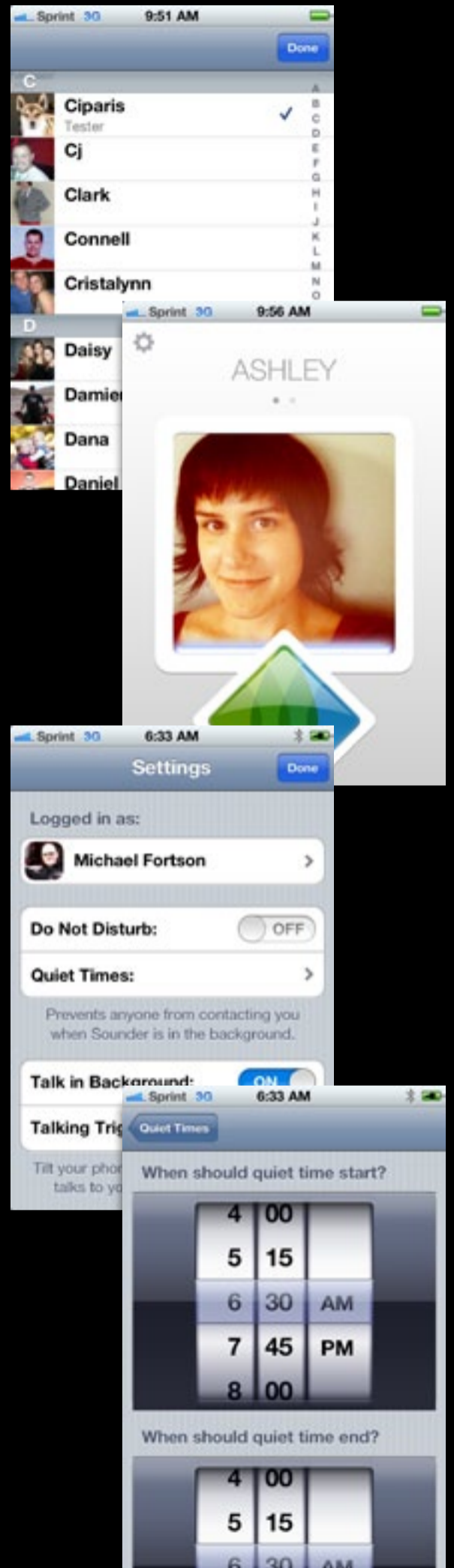
AVAILABILITY

Now Available



THE BREAKDOWN An app that aims to ease the inbox pain by providing a way to speak with those folks that matter.

Keeping on top of voicemails, text messages, emails, IMs, Twitter DMs, Facebook and Google+ messages is a Herculean task. Personal messages often get drowned out in a sea of work-related correspondence. Sounder can help. Pick a few important Facebook friends and the app lets you talk to them directly at the push of a button via VoIP, keeping you connected to those closest to you. Sounder supports the iPhone and iPod touch, with iPad, desktop and Android versions in the works. A \$0.99 upgrade "flip-to-talk" feature, allows you to reply without waking your phone — just turn it over and speak.



Hands-On



MAX PAYNE 3: NATURE OF THE BEAST

Reaction Time



**BY LUDWIG
KIETZMANN**

Ludwig Kietzmann is the Editor-in-Chief of Joystiq.com. He's been writing about video games for over 10 years, and has been working on this self-referential blurb for about twice as long. He thinks it turned out pretty well.

Max Payne can't even find peace in a graveyard. A quiet moment of remembrance, dour and dusted in snow, is soon buried beneath the sound of gunfire. This man exists to kill, and the tombstone that names his murdered wife and daughter is there to provide cover.

The transition from emotionally tinged burial ground to functional battleground is at once touching and tasteless, presented in that kind of awkward, bittersweet combination that video games have gotten down to an art form. Can you really argue with the outcome? The cemetery perfectly recalls the birth of Max, the cynical, disheveled vigilante – and what better playground for Max, the cover-based shooter, than a plot of land filled with upright granite slabs? Rockstar can't outrun the nature of the game, no more than its wrecked anti-hero can escape his nature as problem solver via midair shooting.

The shooting is a revelation. It's so good it evokes a worrisome existential crisis: Yes, it's another eight-to-ten hours of killing everyone in the world, but what if this is, and will always be, what games are best at? *Max Payne 3* nearly makes you roll over in defeat, knowing that Rockstar has harnessed impeccable technology to make people die real good.



It's a simple process served up with peerless presentation. You enter one side of the room and the henchmen, who rarely differentiate in their plan of attack, dutifully show up to be blown away. As a grizzled grump who reeks of alcohol and sweat, your movements are rugged but reliable – and you can forget about the frantic momentum of *Vanquish*, or the nimbleness of Drake in *Uncharted*. Max is an expert at falling down with style.

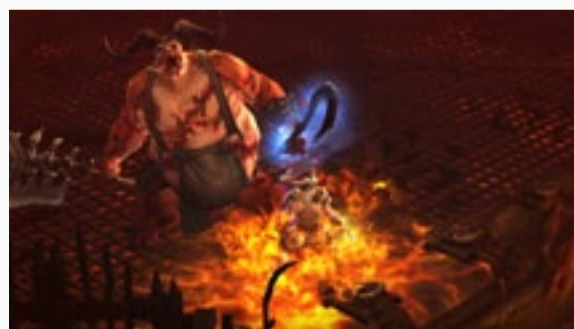
Few games better document the journey of a bullet. As Max hurls himself through the air and into dangerous exposure, the game slows down long enough to reveal its subtle tricks. Every fight is a repeatable build-up of tension – you stick out your head, open fire and adjust your aim as soon the reticle appears – and then relief, marked by a faint on-screen blip that says you can stop pumping bullets into that particular guy. This is also illustrated, in a *slightly more overt way*, by gruesome explosions of blood and a discovery of true purpose for the physics-driven Euphoria animation system, which expertly conveys the horrible fate of body parts struck by

metallic projectiles. Sometimes you're not sure whether to shake your head in disgust, or laugh at how damn cool it all looks.

Activating bullet time gives you a massive advantage, but there's excitement in learning to restrain yourself (Max's life is, after all, mired in substance abuse). Perhaps it's more representative of firearms being loosed in fragile rooms – sometimes



4 NEW RELEASES FOR THE WEEK OF MAY 18TH



Diablo 3
(PC/Mac) \$60



you'll take a breath and line up the perfect shot, and other times you'll panic and disintegrate half an office before scoring a lucky victory. Bits of paper, wood and glass fly through the air; Max's shirt creases as he runs for stronger cover; and sudden corpses slump over in a way best described as ... well, lifelike. The old Max Payne, the one who first grimaced his way through New York, now looks like someone draped a leather trench coat over an inanimate log and launched it from a slingshot.

Rockstar's Max Payne, a contemplative, defeated man who lashes out at opulence and the rich family he's hired to protect (and doomed to fail) in São Paulo, thrives on second chances. Take an unexpected shot to the back, for instance, and Max will slowly twist his body around as he falls and take one last shot. Nail your attacker and you'll make a stylish return journey from the brink of defeat, provided you've got some painkillers in pocket. You can add exclamation to your comeback by keeping the trigger held down and making that bastard rattle all the way to the floor.

It's a gratuitous gimmick, but it preserves the relentless pacing in *Max Payne 3*. The level design always pushes you forward in a hurried pace, giving you an urgent target or a compelling (see: excessively perilous) reason to escape. The unobtrusive heartbeat of a fantastic soundtrack keeps the whole campaign alive, from beginning to end.

Much of *Max Payne 3*'s elegant shooting is pushed over into an elaborate multiplayer mode, which is designed



Mario Tennis Open
(3DS) \$40



Game of Thrones
(Xbox 360 / PS3) \$60



Sonic the Hedgehog 4: Episode 2
(XBLA / PSN / iOS / PC / Android / WP7) \$15



to ensnare you with a steady feed of unlockable, upgradeable weapons and abilities. Tinkering with loadouts can afford quicker recovery times for your stamina (lighter loads mean quicker cooldown periods for special powers and bullet time), and forms the basis of an engaging progression system. More importantly, it's worth sticking around simply for the joy of competitive play,



Max Payne 3

(Xbox 360 / PS3) \$60


not just to barge through level after level of unlocks.

Some player-activated talents, called “bursts,” modify the game in unexpected ways. A burst of paranoia relabels friend as foe within the game interface, while other talents might provide team-wide buffs or disable the other side’s gadgets. These tweaks happen on top of the multiplayer’s core challenge, which is to use bullet time (best visualized as bubbles of dilated time that can suck someone in if they’re in your line of sight) and shoot-dodging with finesse. The guy who blindly leaps out of cover usually ends up floating to the ground like a piece of blood-curdling swiss cheese.

There’s an earnest push for “narrative” in the game’s multiplayer too, seen in the “Gang Wars” mode. The dramatic feud plays out across a single map, but it really just feels like game mode Mad Libs. The [reviled crime family] lost some [turf], so they struck back with a [VIP assassination attempt]. When that failed, things degenerated into a heated, elegaic [deathmatch]. The variety in

modes is appreciated, but the story-based wrapper is suspect.

Surprisingly, that’s also the campaign’s deepest flaw. The neo-noir styling – more Tony Scott than Ridley Scott – is slick and grown up, but cutscenes can feel disruptive, self-indulgent and rambling. Max’s caustic quips are buried in a muddle of nested flashbacks and endless dialogue that aims to convey complexity and dark intrigue, but eventually sounds like the repetitive clatter of name tags rolling about in a tumble dryer. It goes with Rockstar’s vision of Brazil: home to exotic accents, more so than memorable characters.

At least the plot is light on embarrassment, never coming close to the amateurish lows (or over-the-top highs?) that invoke utter dread whenever a significant other enters the room. No, it’s a functional component of *Max Payne 3*, a game built out of remarkably implemented, masterfully presented parts. Video games live or die by the mechanisms that lie underneath. That’s why the graveyards are always full. 

Such a Long Journey - An Interview with Kevin Kelly



by Avi Solomon
Boing Boing



A wide-ranging interview with *Wired* co-founder and “senior maverick” Kevin Kelly, in which he touches on his theory of a “Technium” (broadly speaking, the totality of the technology ecosystem and all of the interdependencies that entails — something discussed at length in his recent book, *What Technology Wants*), as well as a parable inspired by Jaron Lanier’s work in virtual reality, his own work with the Long Now Clock, the future of reading, and his trip across America by bicycle. Bonus recommendation: follow Kevin Kelly on Facebook or Google+ for some incredible dispatches from his current travels across Asia.



AROUND THE WEB

Scamworld: ‘Get Rich Quick’ Schemes Mutate into an Online Monster
by Joseph L. Flatley

The Verge



An exhaustive look into the world of the modern snake oil salesmen — self-proclaimed “internet marketers” who offer the age old promise of getting rich quick with little work. Also accompanied by a short documentary if the word count is a bit too much for you.

A Tale of Openness and Secrecy: The Philadelphia Story
by Alex Wellerstein

Physics Today



This piece from Alex Wellerstein offers a fascinating portrait of a group of nine scientists who, in 1945, attempted to figure out the technical details of the atomic bomb and publish their findings — testing the limits of scientific discourse in the nuclear age in the process.

How Hewlett-Packard Lost its Way
by James Bandler with Doris Burke

Fortune



HP’s stumbles and shake-ups are rarely discussed with the detail found in this recent piece from *Fortune*, which takes an in-depth look at Apotheker’s 11-month tenure as CEO — and, consequently, the state of the company that Meg Whitman now leads.

Fact-Checking Digtimes, the Taiwanese Apple Rumor Source That Keeps Crying ‘Wolf!’
by Harry McCracken

Time Techland



You’ve almost certainly seen some of the rumors spawned by the site *DigiTimes* — especially concerning unannounced Apple products. How unreliable are they? *Time*’s Harry McCracken did some fact-checking, and the results aren’t pretty.

HTC EVO 4G LTE for Sprint

This is an excellent option for Sprint users interested in the latest and greatest, but it's marred by the network's frustrating limitations.

BY BRAD MOLEN



HTC is on a roll in the US, first releasing the One S for T-Mobile and the One X for AT&T. Now, with the EVO 4G LTE on Sprint, it's ready to shift to the CDMA realm in a different costume. Internally, it's incredibly close to what's offered in the One series' flagship, but the Now Network has made a few tweaks to the device so it'll adjust to life as the latest smartphone in the fabled EVO lineup. This time it's packing a powerful processor, gorgeous display and the ability to connect to the still-dormant LTE. It'll be showing its face in retail stores as of May 18th for \$200, placing it in the high end of Sprint's selection.

This review, however, is just a bit different from any we've done before. How so? To our knowledge, we've never done one in New Orleans before. But when a phone gets dropped in our lap at CTIA 2012, we're naturally going to put it through its paces, regardless of location. As it shares so many commonalities with its One brethren, we've been expecting a very similar fit, feel and performance. In our review, we'll take you through what's different and what's better or worse. Is this the best device to grace the hands of Sprint customers? Let's find out.

Hardware

To say this is a One device is a disservice; while it closely resembles a One in size and internal specs, there are several factors that contribute to our impressions of the device being completely different than HTC's trio of international Sense

4-clad superstars. No doubt due to the Taiwanese company's insistence at keeping its new brand intact without much interference from the notorious influence of US carriers, we're thankful that the EVO 4G LTE doesn't have any association with the One brand. At first glimpse, it's easy to tell why Sprint actually attached the EVO brand to this device — it simply *looks* like a natural follow-up to the EVO 4G, a phone that was announced at CTIA two years ago. While there are many reasons this handset is easily associated with one of Sprint's greatest-known brands (the kickstand comes to mind, but more on that shortly), the most recognizable bit is its color scheme, offering a delicate balance of dark greys and reds on the rear of the device. Fortunately, there's just enough red for it to complement the rest of the phone without being too in-your-face.



If you had to compare the EVO 4G LTE with any of HTC's other phones, it'd be closest to the AT&T One X without a question. It stays true to several specs, such as the sensationally beautiful 720p S-LCD2 4.7-inch display (for a pixel density of 312ppi), 1.5GHz dual-core Qualcomm MSM8960 Krait SoC, 1GB of RAM, LTE compatibility, 8-megapixel ImageSense rear camera and 1.3-megapixel front-facing shooter. However, it adds a few tempting improvements: its 16GB internal storage space is now friends with a built-in microSD slot, beefing your maximum capacity up to 48GB. The phone's battery is also larger at 2,000mAh, versus 1,800mAh on both versions of the One X. Finally, Sprint's model is graced with HD Voice, a feature that's expected to become a staple on more devices in the Now Network's lineup.

There are also very modest variations in size and weight. At 4.73 ounces (134g), it's just a tad heavier than the other two. It also measures 134.8 x 68.9 x 8.9 mm (5.31 x 2.71 x 0.35 inches), which makes it shorter by one millimeter and wider than the international One X by four-tenths of a millimeter. Its thickness remains exactly the same as its brethren, however. Of course, unless you're staring at all three devices side-by-side for long periods of time, it's quite likely that you won't notice any sort of difference at all. And to its credit, we found it to be just as comfortable to keep cradled in our average-sized hands for long durations, much like the other two models we've been judging the EVO 4G LTE against.

Since it's designed to be an EVO instead of a One, its overall appearance is the clearest departure. We touched briefly upon the phone's color scheme, but there are some other stark differences to go along with it, such as the materials. We're actually quite pleased with the ingredients here, we'd just prefer not to see all of them thrown in at the same time. In contrast to the smooth and uninterrupted polycarbonate plastic build used on the One X, the EVO 4G LTE uses a red kickstand to divide its back into two sections. On top you still get a polycarbonate body that, despite its highly durable feel, is one of the worst offenders of fingerprints known to mankind. Moving to the bottom, you'll find an anodized aluminum setup with a smooth matte texture that reminds us of the micro-arc oxidation on the back of the One S. A machined-aluminum band races around the handset's edges.

Now, let's not dance around the kickstand. As minor a feature as it may seem, it was a major talking point for the EVO 4G when it was first released in 2010. The metal piece is something we typically only see in HTC devices — it was also added to the Thunderbolt's chassis last year. Oddly enough, it's as if the kickstand only shows up in inaugural next-gen phones: the EVO 4G was the first WiMAX device, the Thunderbolt was the first LTE smartphone on Verizon and this time it's making an appearance in the first HTC LTE handset on Sprint's network. We're happy to report that the kickstand feels completely polished in use, and



we have full confidence that this little gizmo will hold the weight of the phone without any hassle. It even works in two directions for good measure. Why does this matter? It means you can charge the phone while it's propped up.


Above the EVO's massive screen, there's a short strip of anodized aluminum — the same material gracing the bottom of the phone's rear — with a recessed, front-facing camera and LED notification light sitting underneath a speaker grille. The choice of grille over the One X's individual machine-drilled holes makes for another cosmetic difference that leaves us slightly disappointed, but the design preference doesn't adversely affect the phone's sound quality.

The right side of the phone sports a volume button and — joy of joys — a camera shutter button.



Drifting south brings us to the display. While it's every bit as beautiful and vibrant as the S-LCD2 panel on the EVO 4G LTE's older brother, the glass doesn't drape over to the edge. We prefer the seamless look of the One X as the panel just appears to curve over each side. Instead, the top of the phone ekes down along the outer boundaries of the phone to act as a barrier between the screen and the aluminum band that flanks it on the left and right. Finally, the bottom of the display bears a set of three

capacitive keys, featuring back, home and multitasking buttons.

Shifting our focus to the edges, we see a microUSB charging port on the left and a 3.5mm jack on top alongside the



As the name implies, this iteration of EVO is indeed capable of hitting LTE speeds... in theory, at least.



power button and one of two mics. The right side of the phone sports a volume button and — joy of joys — a camera shutter button. Despite our love for this fancy hardware feature, we don't see it in as many phones anymore. Sadly, this includes every device in the One series. We're definitely applauding Sprint and HTC for making sure it was included in the EVO 4G LTE.

We already discussed the mish-mash of materials lining the back of the phone, but let's dive a little deeper. The plastic top doubles as a removable cover, opening up to reveal the highly revered microSD slot. To our disappointment, the SIM is embedded within the device and cannot be removed. From what we've been told, the only way to reach the SIM is to tear the phone apart. Unsurprisingly, the battery suffers from the same fate. The 8-megapixel BSI f/2.0 camera — the same one you'll find on both versions of the One X and One S — sits in this section as well. To our delight, the 28mm lens is recessed underneath the cover, which means you'd have to try pretty hard to dirty it up.

As the name implies, this iteration of EVO is indeed capable of hitting LTE

speeds, utilizing Sprint's 1,900MHz spectrum — in theory, at least. There's just one simple yet significant catch. Despite the fact that this phone is available in stores as of May 18th, the LTE switch hasn't been flipped to the “on” position. We're told that it's still on track to arrive this summer, but don't expect to take advantage of the super-fast speeds to satisfy your lust for unlimited data just yet. CDMA is all you get in the meantime — WiMAX isn't even an option to hold you over. For now, the phone's name is just a bunch of empty acronyms writing checks Sprint can't cash.

Also, world travelers won't be remotely happy with their experience on the EVO 4G LTE, as the phone lacks the GSM and HSPA+ support necessary for international roaming in nearly every corner of the globe.

One other notable difference to the EVO 4G LTE over its One-branded relatives will only be found when you plug the device into your computer. While the One X and S offer options to use USB mass storage or MTP to transfer files, your choices are cut in half with Sprint's version — MTP is all you have. Just like any Ice Cream Sandwich device, however, you can still opt for mass storage functionality through your microSD card.

Performance and Battery Life

Sprint's newest flagship follows in the exact footsteps of its similarly specced predecessor, offering up more of the same all around near-excellence. Navi-

BENCHMARK	HTC EVO 4G LTE	HTC ONE X (AT&T)	HTC ONE S
Quadrant (v2)	5,036	5,183	5,053
Linpack single-thread (MFLOPS)	92.1	103.77	103.88
Linpack multi-thread (MFLOPS)	181.7	214.53	222.22
NenaMark1 (fps)	58.9	58.6	60.8
NenaMark2 (fps)	58.8	58.7	61
SunSpider 0.9.1 ¹ (ms)	1,649	1,709	1,742
Vellamo	2,347	2,350	2,452

Notes: ¹ lower scores are better



gation through the seven customizable homescreens is predictably fast and responsive. It's hard to find much fault with the finesse of the EVO 4G LTE's user experience. Unfortunately, that briskness falls prey to occasional hiccups, as we noticed when the screen froze during an attempt to access the settings menu. We were able to get the device to eventually respond, but those moments of broken fluidity are not exactly few and far between.

Tradition typically dictates a devotion for carrier-branded devices; an unholy fall from their purebred OEM graces resulting in a user experience fettered with the software hiccups most closely associated with third-party intervention. Thankfully, however, the EVO 4G LTE has largely avoided that terrible fate, falling in line, more or less, with the benchmark performance notched by AT&T's variant. Its Quadrant, Linpack and NenaMark (1 and 2) scores bizarrely fell short of both the One X and One S, despite sharing a similar Snapdragon S4



processor. The handset did, however, leap past its cousins with a SunSpider score of 1,649 and for good reason too, as full desktop pages rendered in under five seconds with occasional tiling.

Caveat: Sprint's yet to officially flip the switch on its nascent LTE network, so we have no precise way of knowing the true longevity of the device's 2,000mAh battery when stressed by those 1,900Mhz waves. In the meantime, we were able to test the operator's 3G performance in New Orleans and, surprisingly, it yielded speeds that far exceeded the slow CDMA crawl we're used to seeing elsewhere. Whether that's a direct result of a dearth of iPhones in the area, the EVO 4G LTE notched a max of 2.4Mbps down and averaged 1.7Mbps / 731Kbps.

We did get to put the EVO 4G LTE through our usual battery rundown test (looping a video with brightness and volume set to 50%, Bluetooth disabled, WiFi turned on but not connected and CDMA plus LTE enabled) and the phone lasted eight hours and 55 minutes, just like AT&T's One X — this despite a

larger 2000mAh battery (vs. 1800mAh on its cousin) and a strong CDMA signal. The difference is likely due to the LTE radio being enabled without a network available. We were unable to test HD Voice because the feature is not expected to start rolling out on Sprint's network until "late 2012", according to a spokesperson. Regular calls, however, sounded clear on both ends and reception was problem free.

Software

What's left to say about the software on a phone so nice, HTC's released it thrice? Not much, it turns out, especially where carrier customization is concerned. Sprint's managed to keep that count down to two, with only Zone and Hotspot taking up space in the app drawer. This is, after all, the cream of Peter Chou's smartphone crop and, as such, comes lightly bedecked in a Sense 4 suit, underneath which lies Google's latest dessert-themed UI (4.0.3) replete with the usual GApps, including Google Wallet. Members of the tech-savvy tribe should, at




this point, be unfazed by this heretical skinned approach to Android 4.0 and either make peace with an unavoidable UX fate or saddle up for a rooting joyride. Whatever your preferred path may be, there's a refreshing lack of bloat on the handset. So, apart from Facebook and the Dropbox integration (still 25GB for two years) ushered in with the One line, you won't find much to complain about.

Camera

When it comes to imaging on super-phones, it's fair to say that HTC's raised the bar with the camera on the One X and One S by combining a wide aperture f/2.0 autofocus lens and backside illuminated 8-megapixel sensor with an ultra-quick and intuitive UI. Not only does the HTC EVO 4G LTE feature the same fantastic shooter as its cousins (LED flash and all), it sweetens the deal by adding

the one bit of hardware we really wanted — a dedicated two-stage shutter key. This camera button feels absolutely phenomenal — with just the right amount of resistance and tactile feedback. Another improvement is the recessed optics, which are protected from both accidental scratches and fingerprints.

It's clear that the EVO 4G LTE camera delivers. As expected, it takes lovely pictures with the same impressive low-light performance, striking colors and balanced exposure as the One X and One S. The features are identical too, with HDR and panorama modes plus a full set of real-time Instagram-like filters to choose from. The shooter is not without faults, however — the autofocus often struggles in the dark and with close-ups of moving subjects, the white balance is sometimes off, and the settings still lack a metering option (cen-




ter-weighted, spot or average). While we applaud that the dual-detent shutter button locks both focus and exposure, there's no feedback from the UI when the camera is focused (such as a beep or a visual indicator in the viewfinder).

Video recording on the EVO 4G LTE is just as refined as on the One X and One S, delivering silky smooth, 1080p content at 30fps with stereo audio and continuous autofocus. Slow-motion capture carries over as well.

Wrap-Up

Let's not mince words here — the EVO 4G LTE is a great phone in search of a network. Yes, it's thin, light, beautifully made and amazingly fast, with a gorgeous screen and a remarkable camera. Sense 4 enhances Ice Cream Sandwich without diluting the user experience. As such, it absolutely lives up to its EVO namesake. In fact, we dare say that it's the best Android smartphone you can get on the network. While it does not match the One X's incredibly polished design, it improves upon its cousin with a kickstand, a dedicated camera key and a microSD card slot. Still, the lack of GSM/EDGE/HSPA+ world functionality is bothersome on such a high-end device, and the sealed SIM is just downright egregious. So, is the EVO 4G LTE worth its \$200 price tag with a two-year commitment? The answer is simple: until Sprint's LTE network becomes widespread, it's hard to recommend any handset stuck on the company's lackluster EVDO network —

unlimited data or not. As soon as the device can live up to its acronyms, however, we'll be much more apt to give it our seal of approval. 

Joseph Volpe, Myriam Joire and Terrence O'Brien contributed to this review.

Brad is a mobile editor at Engadget, an outdoorsy guy, and a lover of eccentric New Wave and electro. Singer and beatboxer.

BOTTOMLINE

**HTC (Sprint)
EVO 4G LTE**

\$200 on contract

PROS

- Stellar camera
- Top-notch performance
- Gorgeous 720p HD display

CONS

- Lacks GSM / HSPA+ world roaming
- LTE network isn't turned on
- Non-removable embedded SIM

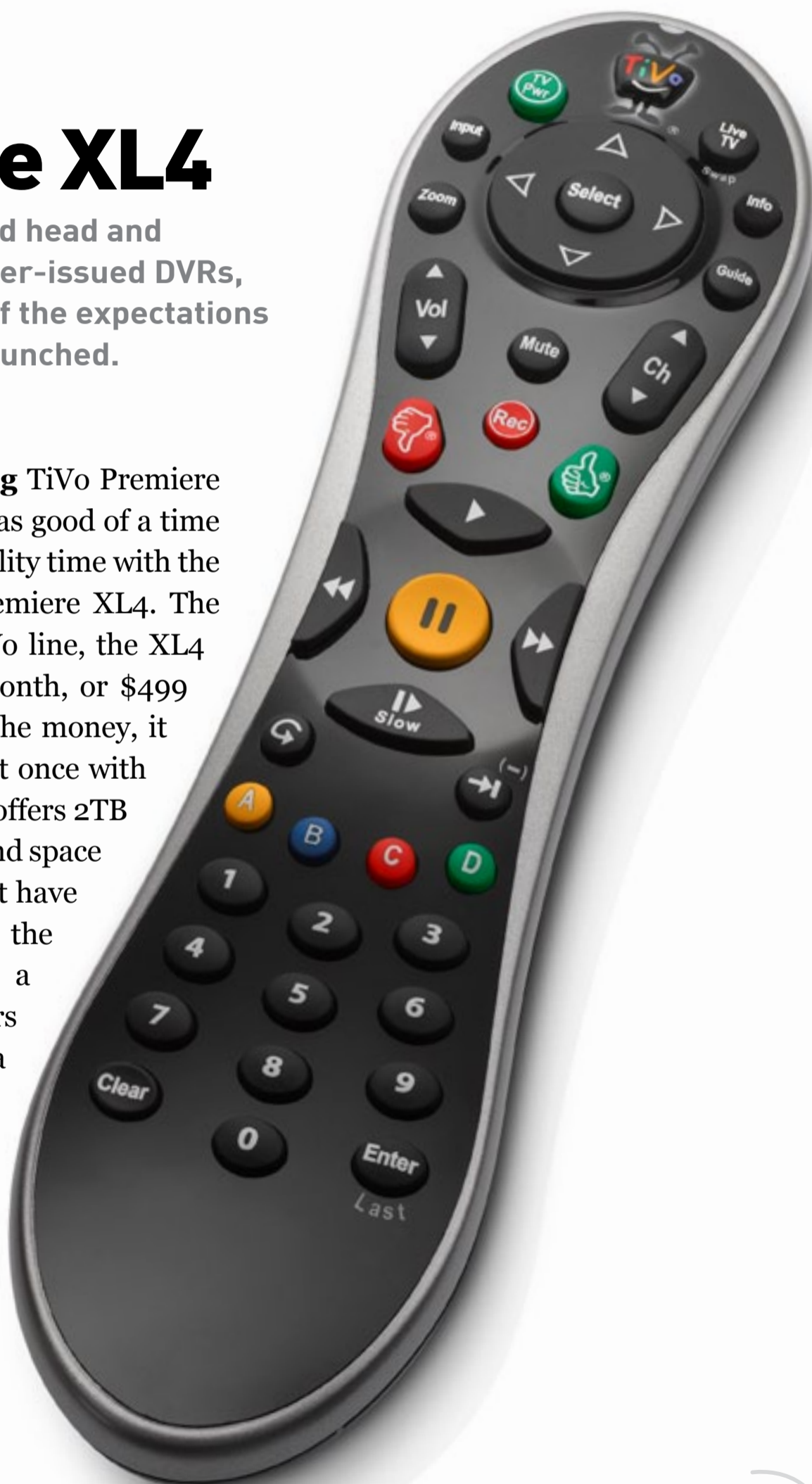
The EVO 4G LTE is an excellent option for Sprint users interested in the latest and greatest, but it's marred by the network's frustrating limitations.

TiVo Premiere XL4

TiVo continues to stand head and shoulders over provider-issued DVRs, but it still fails short of the expectations we had when it first launched.

BY BEN DRAWBAUGH

With the recent spring TiVo Premiere update we figured it was as good of a time as any to spend some quality time with the newly-renamed TiVo Premiere XL4. The highest model in the TiVo line, the XL4 costs \$399 plus \$15 a month, or \$499 for lifetime service. For the money, it records four HD shows at once with a single CableCARD and offers 2TB of storage. More tuners and space aren't the only things that have changed since we gave the original TiVo Premiere a once-over just two years ago. There have been a few notable changes as well as the release of the TiVo Slide Remote and a number of TiVo companion apps for phones and tablets. How all that comes together is exactly what you'll find out should you choose to read on.





Hardware

There are many similarities between the standard TiVo Premiere and the XL4, with the primary difference being the number of tuners. First up, the XL4 is the only CableCARD-enabled TiVo that doesn't support analog cable or over-the-air. But while this means it isn't the cord-cutter's solution that its little brothers are, the XL4 does offer the ability to record four shows at once — although you wouldn't know it by the conflict resolution process.

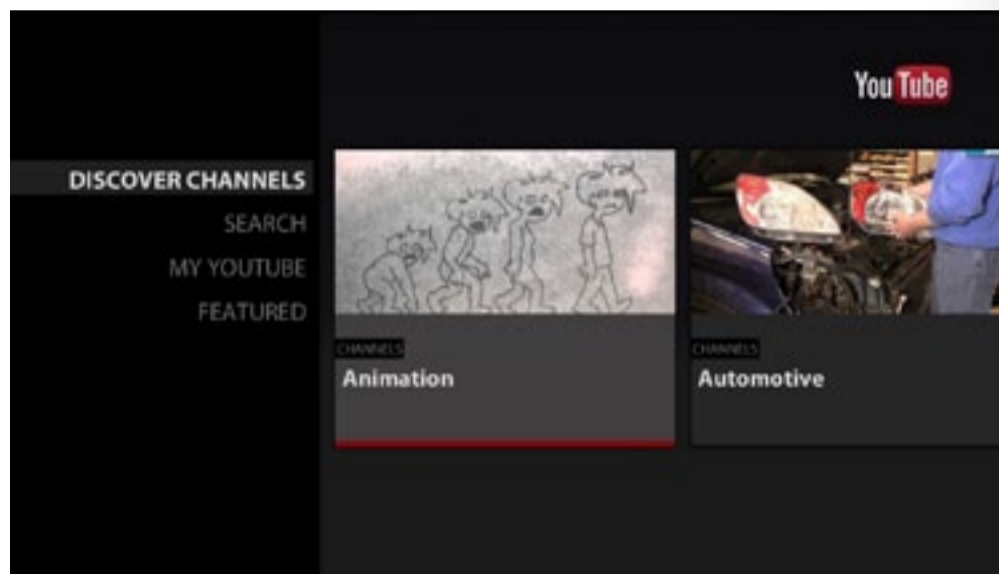
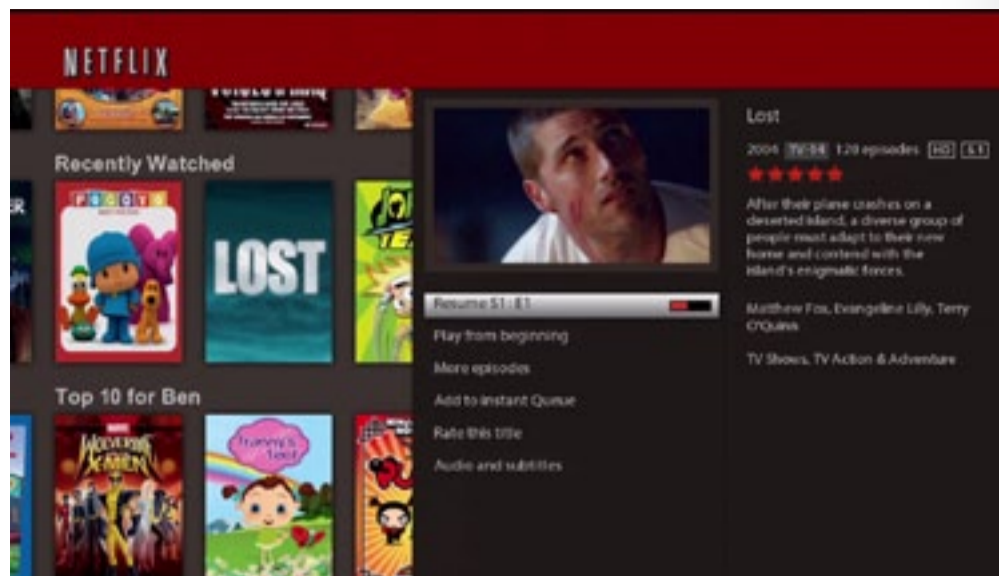
The other big difference here is the inclusion of MoCA. This might not seem like a big deal, but we think it is. The main advantages to MoCA are its greater reliability compared to WiFi and, while many homes still don't have wired network connections in the living room, everyone has coax in there. If you happen to have a provider like FiOS TV that uses MoCA as part of its solution, then it's even better because you can just connect the coax to the back of the XL4 and you're done. As an added bonus, the XL4 will act as a MoCA-to-Ethernet bridge. This means you can

connect a switch, or anything else, to the CAT5 port on the back of the XL4 and have access to the rest of your home network on that device too. Other than that, though, the XL4 hardware falls in line with the rest of the Premiere lineup, including two rear USB ports, a single rear CableCARD slot, an eSATA port and the regular assortment of audio and video outputs. The bad news, though, is that like the rest of the line, there's no built-in WiFi. This really rubs us the wrong way considering TiVo offers its Wireless N adapter for \$89.99, which is \$40 more than the Roku LT streamer that includes it.

Two final mentionables here are the THX certification and the Glo remote. As we pointed out in the original Premiere review, the standard remote is pretty cheesy. Both the XL and the XL4 include the TiVo Glo Remote, originally shipped with the Series3, that features a higher-quality feel, backlit keys and the ability to learn commands from your TV or AV receiver's remote. The THX certification validates that the signal quality coming in the DVR matches


what comes out, but it also mean a pair of filtered glasses are included which work with the preloaded six-minute THX optimizer video that is used to walk you through calibrating your TV's picture settings to perfectly match the output of your DVR. We're huge proponents of calibrating your display to your source, so we can't express how much we appreciate this. All that being said, you can calibrate your TV to match your DVR using something like the HDNet Test patterns (broadcast every Tuesday morning at 8 a.m. ET) and the filtered glasses you get with a Blu-ray calibration disc.

The lack of over-the-air tuners will certainly be missed by some, but one hardware feature omission we can't forgive is HDMI-CEC. We appreciate that the TiVo remote is programmable, but considering it will only control your TV and AV receiver's power, volume and input selection, we can't understand why TiVo doesn't implement HDMI-CEC. It would do away with programming the remote completely — we can't think of a single TV or AV receiver released in the past five years that doesn't support HDMI-CEC. The XL4 does offer more control integration with third-party devices than most, though. In fact we were able to easily download a Crestron module for the TiVo and have full integration with our home automation system via IP without much effort at all (the protocol is published if you use a different HA controller).



Netflix, YouTube and Other Streaming

Streaming movies from Netflix to your TiVo is nothing new, in fact TiVo was only second only to the Xbox 360 in adding the feature over three years ago. But unlike the Xbox Netflix experience that has been revised more than a few times since release, TiVo's experience has remained unchanged and was becoming very dated. That changes today, but sadly, not in a revolutionary way. What we mean is that, like the Hulu Plus experience on TiVo, the Netflix TiVo experience isn't unique. In fact, it's almost identical to that of the Boxee and other boxes. We don't care that it isn't new, per se, the problem is it isn't



like the TiVo experience we've grown to love. The familiar TiVo colors, sounds and even button actions aren't much alike. We're not saying we don't like this new Netflix; it's just that we're disappointed that it isn't TiVo-flavored, say the way the Xbox version mimics the game console's user interface. You can browse for things to watch, finally, as well as search or rely on the tried-and-true Instant Queue. You can even find content on Netflix via TiVo's unified search, but it doesn't take you directly to the results when selected; instead it takes you to the Netflix search, which is better than what it did when we tried it from the iPad app (in that case, it simply launches the Netflix app).

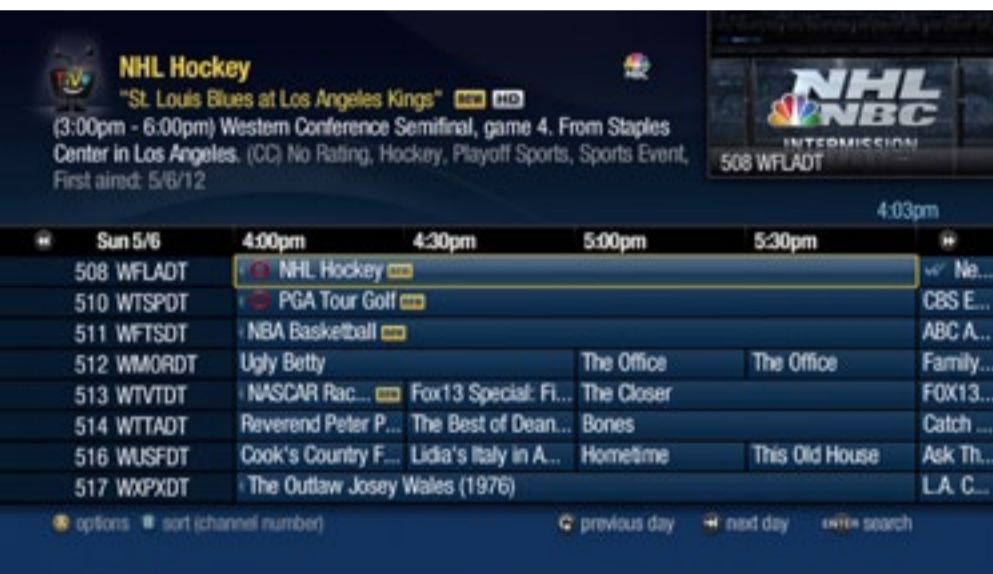
Speaking of launching the app, it takes about 40 seconds, which seems like a lifetime if you accidentally hit the TiVo, Guide or Live TV button on the remote and just want to find your way back to what you were watching. We're glad at least some of the buttons on the remote do the same thing, because the info, skip and replay buttons don't work at all when using Netflix. Instead you have to use the right and left d-pad to skip around in a show. The good news is that both 1080p and 5.1 are supported and we even saw the Dolby Digital Plus light on our AVR get some action. What's a bit jarring is the switch from 720p to 1080p. It seems that HD streams start out at the lower resolution and then switch after about 30 seconds, which can mean a few seconds of blackness if your HDTV doesn't resync as fast as you'd like. This can be

especially annoying if the feed keeps switching back and forth between two resolutions while it deals with less-than-consistent internet throughput. This is less irritating than the alternative, however, because while TiVo supports 1080p passthrough, it can't rescale it like it can other resolutions.

Much like Netflix, the YouTube experience is like most other streaming boxes and not very TiVo-like. In fact the only real point of integration between the main TiVo experience and the other apps, including YouTube, is that TiVo search returns results from all sources. Launching any TiVo app takes more time than we'd like and the buttons on the remote don't behave the same as they do anywhere else. Switching apps is basically just as jarring as switching inputs — assuming you had a programmable remote.

The only thing worse than incongruous user experiences is the lack of apps, and while TiVo originally positioned the Premiere line as the everything box, here we are two years later and it hasn't kept up with the competition. Where are Watch ESPN, Vudu, HBO Go, Amazon Prime, Epix, Crackle or CinemaNow? The list goes on. We're sure TiVo owners are very happy to get updated versions of Netflix and YouTube, but in reality, they're both long overdue and we'd be shocked if TiVo owners who were serious about those other sources haven't at least seriously considered adding another box to fill in the gaps. There is one source that TiVo has that almost no





one else does, but unfortunately we're not in San Francisco and thus unable to try out the Xfinity On Demand, but everything we've read is good and, evidently, the plans are to expand it to more Comcast markets before too long.

New Guides and Info bars

Streaming apps aren't the only big change TiVo has made on the Premiere lineup since our initial review. About five months ago, TiVo released an update that finally brought the HD treatment to the guide and refreshed the info bars (among other features we'll cover shortly). The new HD guide is uncharacteristically snappy, optimized to fill the whole screen and, in this edition, moves

the video preview window to the top right corner. Thankfully, the pause button will save you from that video window spoiling your favorite show. The revamped guide still leaves room to display eight channels and what's on for the next two-plus hours. The TiVo Live Guide is still available and looks a lot like the Grid except that it displays the next eight shows on one channel at a time — still a great way to find new things to record on your favorite channels. Unfortunately, there's no option to add color codes or built-in filters for genres like sports or drama, but TiVo has finally added indicators to let you know what will record and which are part of a season pass. As for guide options, you can easily remove any channel you want completely, create a single favorites list, quickly skip around by hours or days at a time or go straight to any time in the next two weeks. Additionally, you can sort by name, giving your provider's crazy numbering the boot once and for all.

In addition to the old school favorite guides, there is a new mini one as well. Pressing the select button summons the mini-guide that displays just three channels and the next two-plus hours of programming, while still leaving most of the screen real estate for whatever is currently playing. What is a bit odd is that while select brings up the mini-guide, hitting it again selects the program currently highlighted in the guide (pressing the guide button with the guide displayed clears the guide), and if you'd like to go back to what you were



watching, you'll need to hit the clear button. Like the full guide, the skip buttons make it easy to quickly jump to a different time in the future and channel up and down still works as page up and down. The program information available in the mini-guide is more limited compared to the full guide, but things like title, rating, channel info, season and episode number are still there.

Also new since our original Premiere review is the info bar at the top that comes up when you change the channel or hit the info button. There are two new versions of it, with the less compact one offering more details, as well as some advanced options you might want easy access to. Pressing right also brings up this bar at the bottom of the screen, with the initial look presenting the details of the show, and pressing the down button allows access to see what the other tuners are doing, enable closed captioning or select alternate audio tracks. One thing that's missing that happened to be included in the old info bar is the ability to enable

parental controls. The Spring update included the first HD TiVo user interface that even supports parental controls. You are prompted to temporarily disable parental controls if you try to access a TV show or movie with a rating beyond your set threshold (or tune to a channel you blocked completely). The only way to re-enable it is to not use the TiVo for four hours, put it in standby or dig in the settings a few menus deep. This one annoyance aside, we're sure concerned parents will be happy to feel less tied to switching back to the SD user interface just for parental controls, but they might still go back for KidZone, which may likely never get the HD treatment.

Whole-Home DVR

We believe that 2012 might prove to be the year of the whole-home DVR, but if it is for TiVo, it hasn't happened yet. The winter update did enable TiVo-to-TiVo streaming, but that isn't exactly enough to be a whole-home DVR. It is a big improvement over the previous multi-room viewing that wasn't compatible with content marked Copy Once (since it technically was making a copy of the recording). TiVo does make the Preview for a few cable companies, but it has yet to release it at retail and without the ability to remotely schedule recordings, it still wouldn't exactly make the TiVo Premiere line a whole-home DVR.


Wrap-Up

In the two years since the release of the Premiere, TiVo has actually made



more than a few enhancements beyond those from this year. These include the release of the TiVo Slide Remote, Hulu, iPad, Android and iPhone apps, but we can't help but think there's still so much more to do before TiVo lives up to the expectations it set more than 10 years ago. In fact, a number of our two-year-old beefs remain unanswered, including our desire for real-time remote scheduling, streaming to other devices and an easy way to replace your old TiVo — you can transfer your season passes via TiVo.com, but not recordings or other settings like history. To this day, many of the less-often used screens are still in SD including To Do list, season pass manager, history, manual recordings and browse web videos/photos.

The truly sad thing is that even with all these misses, the TiVo Premiere XL4 is still the best DVR available at retail. On top of that, the overall user experience still manages to leave your provider's DVRs in the dust despite the fact that it may feature some of the previously mentioned gripes — more features don't always equal a great experience. When you consider that CableCARD self-installs are now the norm and easier than ever, it all adds up to make the TiVo Premiere lineup of DVRs the best out there. All that being said, TiVo is leaving the market wide open for its competitors — although that has been true for years. The bottom line is the only reason cable subscribers might not want to go with the Premiere is that they'd rather roll their

own DVR, they couldn't care less about the experience or they're just cheap. 

There aren't many people out there more passionate about HD than Ben Drawbaugh. When he's not writing about HD, you'll find him with his wife chasing after their two children.

BOTTOM LINE

TiVo Premiere XL4

\$399+

PROS

- Four tuners
- Excellent phone and tablet apps
- Streams video and traditional cable on a single box

CONS

- Not a whole-home DVR
- Missing some popular streaming sources
- Parts of the UI are still slow and in standard-definition

TiVo continues to stand head and shoulders over provider-issued DVRs, but it still fails short of the expectations we had when it first launched.

twelve south

Twelve South's BookBook for iPhone, a break in their long-standing Mac-only tradition.

Opening the *Book(Book)* on Twelve South

**BETWEEN THE COVERS OF A
MAC-EXCLUSIVE ACCESSORY MAKER**

BY DARREN MURPH



THE YEAR IS 2009. In history books, it'll widely be recognized as the year that most of America — heck, the world — would prefer to forget. Job after job was lost, bank after bank fell, and humanity as we knew it plunged into “the worst recession since the Great Depression.” It's also the year that Palm attempted a comeback with webOS, and as it turns out, the year that yet another accessory company was born. While such an occurrence may be forgettable on a macro scale, economic researchers and lovers of technology alike have reason to take notice — and, indeed, ask questions. So, that's exactly what I did.

Sometimes the most functional solution can yield an elegant design.

Beyond growing a technology startup in a me-too field during the worst economy that I've personally been a part of, it's also not often that I find compelling consumer electronics companies far outside of New York City and San Francisco. Twelve South just so happens to be located in a nondescript nook in Mt. Pleasant, South Carolina — just a beautiful trip over the Arthur Ravenel Jr. Bridge from historic Charleston. Three years after its founding, the company now fittingly counts a dozen employees on its roster, and despite entering a market flooded with iAccessory after iAccessory, it has somehow managed to grab its own slice of an increasingly large niche. As with all good success stories, this particular outfit has plenty of twists, turns and run-ins with Lady Luck to tell about; for those interested in seeing how the “stay small” mantra is keeping Twelve South firmly focused on the future ahead, settle in and join us for the tale.

CHANNELED BEGINNINGS

I traveled down to the Lowcountry to have a peek into the daily lives of the folks that keep one of the smallest, albeit well-recognized-in-its-niche accessory makers, alive and kicking. For one, it's pretty interesting that a design-focused accessory maker not only threw down roots in South Carolina (instead of the conventional NYC/Chicago/LA/SF options), and two, the amount of focus this company exhibits is tremendous. Saying you're “Apple-exclusive” is one thing; saying “Mac-exclusive” is another. In fact, it was only recently that Twelve South issued its first iPhone accessory — the vintage-themed BookBook — and it took an *awful* lot of convincing to get the green light from co-founder Andrew Green. But I'll get to that in a moment.

Green launched the company with his wife Leigh Ann, and even today they share not only a home, but *an office*. Role models, anyone? At any rate, the two followed interesting paths leading to one of the biggest port cities in the American southeast. It (roughly) began as the two worked in New York (Mr. in marketing/publishing, Mrs. in fashion). After some years, Griffin (yeah, the iTrip Griffin) came calling, and soon after, Digital Lifestyle Outfitters (DLO) brought the couple to the area they still call home. According to Andrew, his years working on accessories for those two outfits gave him gobs of perspective, and it was

“...This particular outfit has plenty of twists, turns and run-ins with Lady Luck to tell about.”



soon after Philips swallowed up DLO that he fully realized the joy of staying small. Griffin was small. DLO was small. Philips was decidedly un-small.

He holds no ill-will towards corporations of any size, but he confesses that his own happiness has been elevated while working in companies where decisions can be made over lunch. Small-scale risks can be taken when the minimum order quantity isn't in the thousands. And, most importantly, he feels that the ability to adapt, innovate and create products that people don't even know they want yet prevails in small environments. Thus, it's no surprise that he works alongside just 11 other people, who just so happen to share his intense passion for creating beautiful, useful products for Mac loyalists.



Simple hand-made prototypes alongside the final PlugBug, which juices up two devices at once by piggybacking on a charger.

SURVIVING A STARTUP

Perhaps unsurprisingly, finding funding for a peripheral maker in 2009 wasn't easy. Impossible, depending on who you ask. That said, kids can't really do much to prevent the 'rents from tossing their college funds into a tech startup, and for all intents and purposes, that's what happened here. With a one-year runway and three prototypes in hand, a lot had to happen between then and now. And, as Green humbly admits, a lot of things just fell into place.

The couple just so happened to know a metalworker in Tennessee, and using some far-flung contraption, he was able to whip up the earliest look ever at the BookArc; to cover the harsh edges, they scoured a Lowes home improvement store for pliable tubing. Mix in a pinch of DIY instincts, and they were looking at the doodad that would eventually win over buyers for Apple's own retail outlets.

His days with Griffin and DLO provided him access to a smattering of contacts at both Apple and with turnkey manufacturing facilities in mainland China. The call to Cupertino, however, wasn't returned with as much gusto as Green had hoped. After twiddling their thumbs, the founders finally landed the sales meeting they longed for and, amazingly, Apple Retail wanted a pair of Twelve South's products on store shelves — including the aforesaid BookArc.

"How soon?" I asked.

"Immediately," Green said. "We walked out of there asking ourselves: 'Did that really just happen?'"

For those keeping count, that year-long financial runway was at least one-fourth over, and suddenly — with no website, no physical presence, no Chinese language skills and no confirmed manufacturing partner — these two had no choice but to truly, actually launch their company.

My eyebrows rose a bit, expressing a confusing wave of excitement, anxiety and concern as Andrew detailed the situation to me.

"Yeah," Andrew said. "Yeah..."

Within a week, the two had booked a trip to China and were meeting up with the only known contact they had in the Asian manufacturing circle. The facility was top-notch and would handle construction, packaging — the works. The problem with that level of service is, of course, the price.

The BookArc, one of the standout products that caught Apple's eye and gained access to the exclusive Apple Retail environment.



“We weren’t anywhere close,” said Green. “Suddenly, we found ourselves dropped like a hot potato by the only people we knew in China. We sat in our Shenzhen hotel room, staring at one another, thinking ‘Oh, shit.’”

I interrupt his story to express my amazement at the situation, conveying the lack of poise I can only assume I’d exhibit in the same situation. But it seems that the old adage of “It’s not what happens to you, it’s how you react to it” applied here as well.

“I rummaged through any remaining contacts I could find on a WiFi hotspot down the street, and called a guy I had talked to a good while back,” Green said. As it turns out, this Hail Mary led to a cab picking the Greens up from their hotel the following morning. Upon looking at the proposal, the two let out what I can only imagine were monumental sighs. “We finally had something to work with,” uttered an obviously relieved Green.

STAY SMALL

The phrase “Stay small” is not plastered along the walls, nor is it tattooed across the foreheads of those within the company. But it is, however, amongst my favorite tunes from a little-known band by the name of The Receiving End Of Sirens. It’s also an unofficial mantra of the Greens, and it’s incontestably the most amazing part of my visit.

You see, there’s a stark difference when looking at startups that had to raise capital from return-hungry angels, and one that’s started with a trio of college funds. Instagram also had around a dozen employees in the early days of 2012; by April, it was purchased for *a billion dollars* by Facebook. Twelve South will never be purchased for a billion dollars. In fact — if I had to bet — Twelve South will never be purchased, period.

I’ve interacted with countless founders, co-founders and so-called co-founders over the years, and while the general spiel is usually the same, few genuinely stick close to the ethos that they started with. At the end of the day, it’s about the almighty dollar, and there’s obvious incentive to grow revenue in as many (legal) ways as possible, or possibly even seek a suitor or IPO. It’s as if this is all a foreign concept at Twelve South.

“Suddenly we found ourselves dropped like a hot potato by the only people we knew in China.”



Behind the scenes at Twelve South headquarters.

Looping back to my earlier point about the iPhone-compatible BookBook, the Greens founded their company with one primary goal: to serve the intensely loyal and, as Andrew Green puts it, “massively underserved” Mac market. “Everyone has a product that works with iPhone or iPod,” Green stated, “but what about the Mac? Every time I’d walk into an Apple Store, I’d see heaps of ‘Mac-compatible’ accessories. Mac users don’t want compatible. They want exclusive. There are tons of companies that serve the PC market — and that’s great — but we saw very real potential to commit to the Mac market with our products.”

To date, the company offers but a handful of products. The BookBook family is the best-selling, according to Green, and has expanded from serving MacBooks to iPads and iPhones. For those unaware, it’s a rigid case for each of the aforesaid products, but on the outside, it looks like a worn, well-loved book. Assuming it doesn’t become *huge*, it also serves as a lovely anti-theft measure — it’s about as unassuming as they come, and while iBooks may entice thieves, *standard* books... don’t.

The BookArc is perhaps its second-best product (in my humble opinion), enabling MacBook loyalists to use their products in a closed-lid scenario, while giving the laptop a cute, space-saving place to reside. In a nutshell, all of its products are solutions to problems that Green and co. had. “We don’t do focus groups. We don’t build products for the sake of design. We build solutions to problems that we run into during day-to-day Mac use.”

The thing is, though, these products are *really* good. That’s not Andrew telling me to say that. That’s me canvassing Twelve South’s product line and just being honest. For Mac, iPad and iPhone users willing to pay a premium for well-thought-out wares that aren’t just built for the sake of satisfying shareholders’ desire to keep something new on the shelf, these are just about as clever and classy as they get.

The conversation dovetails into me asking a number of prying questions. Things like: “Do you get a heads-up from Apple on design changes? Did you fully expect that serving the Apple community alone would be able to carry you? Have sales skyrocketed along with Apple’s skyrocketing profits?”

The Greens did an admittedly fine job of dodging what they weren’t allowed to speak about outside of NDA (that’s a Non-Disclosure Agreement, for those who abhor legal acronyms) but I got the impression that Apple gives no one — accessory makers, anyway — a heads-up about incoming form factors. He recalled a period of time during his prior work where at least one major peripheral outfit gave the go-ahead to produce a new range of iAccessories based only on leaked design images. Turns out, they weren’t even remotely close to accurate. “Obviously, we don’t have the kind of scale here to try things like that. We take our time,” he said.

The next question must have felt obvious: “Well, what if you had the opportunity to branch out... to make accessories for companies other than Apple?”

“We’re not interested in that,” he said. In fact, he *has* been approached by the non-Apple world; designers looking for a design house, companies with earnings in the billions and even one particular CEO of one particularly important consumer electronics company. Green remains humble, but I’m aghast.

“We build solutions to problems that we run into during day-to-day Mac use.”

“So you’re saying there are companies that would take your products right now and adapt them for use elsewhere, but you won’t do it?” I asked.

“We’ve thought about it, and we’ve had plenty of back-and-forth about it,” Green said. “But it all comes back to one main decision: do we want to be a nimble, innovative company or a logistics company?”

Green’s been in this business long enough to know the difference.

“I don’t want to spend my days thinking about how to get so many shipping containers to so many companies,” he added. “I want to think about creating new stuff. We could certainly create a spinoff company that maintains our DNA but creates for other companies, but then, we’re diluting the very stuff we’re making today.”

He tells me he’s still working on plans to actually end-of-life a product — something he really hasn’t had to worry about just yet — and it’s obvious what a painful personal experience this is to him. It’s as if each product is a child, and deciding when it’s time to let ‘em go is never an easy task.

I take one last walk around the office, still trying to wrap my head around the fact that Twelve South will almost certainly never be bigger than it is today. *By choice.* It just doesn’t compute in a startup realm fueled by high-finance fantasies and absurd valuations. But, it seems to me that I’ve stumbled upon a duo that understands the pressures that come with expansion, and a duo that genuinely has no desire greater than being awesome at what they initially set out to do.

“So you’re telling me you’re choosing to stay small as a matter of personal fulfillment?” I asked.

“Yes.”



Darren holds the Guinness World Record for being the most prolific professional blogger on planet Earth. He’s also an argonaut.



Twelve South’s largely successful vintage-themed BookBook case. For Mac.



IN REAL LIFE

Welcome to IRL, an ongoing feature where we talk about the gadgets, apps and toys we're using in real life and take a second look at products that already got the formal review treatment.

1.



2.



3.



Verizon Jetpack MiFi 4620, iHome iC50 and Epson's EH-TW9000 3D Projector

BY ENGADGET STAFF

Just call this week's column the something borrowed edition. Rather than do a formal review — the sort of cookie-cutter project that can be over and done with in a week, frankly — we asked three staffers to not just test new products, but to live with them. For starters, our very own jet-setting Darren Murph used Verizon Wireless' new Jetpack MiFi 4620L to get work done on the go, while our new editor Jon Fingas traded in his Sony clock radio for an iHome dock that promised to play nice with his non-Apple device. Rounding things out, Sharif took a \$4,000 3D projector for a weeks-long spin because, well, why not?



Verizon Jetpack MiFi 4620

I've spent my fair share of time getting close to MiFis. And by "close," I mean "close to crushing them beneath the heel of my foot." As awesome as they are when they work, these things just have a way of... not working. Blame flaky cell towers, or just blame fate, but anyone who has had to rely on a pebble for internet during a crushing work period understands my frustration.

Verizon's LTE-equipped Jetpack MiFi 4620L is an awkwardly-named soul, but it's a brilliant piece of technology. For one, you can charge it through the USB port on your computer; earlier MiFi units would reboot themselves unless powered by a USB connection that *didn't* lead to a computer. Secondly, the brobdingnagian 3,000mAh battery (optional, but a must-have) makes the stock 1,500mAh cell look puny. That thing keeps my LTE live for hours on end; my laptop actually dies before my MiFi.



The built-in display, while spartan, is *awesome*. Having glanceable data that shows your current signal strength, how many clients are connected, a battery life indicator, etc. is truly useful. I also found it to be entirely more reliable than my SCH-LC11 LTE hotspot, which tends to reboot itself more than I'd like. Speeds, naturally, are insane, consistently outpacing my middling cable connection when latched onto an LTE tower (8Mbps to 10Mbps in both directions has been easily attainable in repeated speed tests). If you're hankering for an LTE MiFi to call your own, I'd stop hunting: this thing is a road warrior's dream at \$50 (or less) on contract.

—Darren Murph



iHome iC50 FM Stereo Alarm Clock Radio for Android

Android might have the advantage in device variety, but when it comes to accessories, it's still an iOS world. Odds are that, if your device doesn't have an Apple Dock Connector, you'll be relegated to using a generic USB port or line-in jack, if you get anything at all. That's why I was slightly jazzed when I got my

hands on the iHome iC50 clock radio. It has a micro-USB docking system that can slide on a track and theoretically accommodate most any Android smartphone — or at least, those with their micro-USB ports on the bottom, like my Galaxy Nexus.

As a clock radio, the iC50 works quite well: I'm a fan of the compact design, the display won't blind you at night and the con-

trols are simple enough (if not especially deep). Setting the time and other basics are certainly more obvious than on the Sony clock radio dock I've been using for the past few years. The trouble started, however, when I tried to dock that Galaxy Nexus. Even with a toggle switch to change signaling — that should've been a small warning sign — the supplied

USB adapter cable designed for the sliding dock refused to charge Samsung's Android 4.0 phone. I ended up having to coil the phone's own USB cable in the space provided, which meant that the phone only ever sits loosely in the docking space. Piping audio to the speakers also requires a male-male headphone jack adapter; one of those is included, but it's short enough that it only works for phones with the audio jack on the bottom, like the Nexus. The audio quality is good, but the iC50's integration experience just isn't quite there yet compared to the plug-in-and-you're-done experience of an iPhone dock.

iHome makes an app of its own, iHome Sleep, that's meant to pair up with the iC50 (and other speaker docks). I like the simplicity of setting an alarm, and the convenience of seeing the weather



on the splash screen, but it's a little too stripped-down to serve more than the basic needs of waking up on time. You can only pick one local library song or pre-supplied sound for the sleep timer or alarm: if you're not unconscious or out of bed when the sound ends, it repeats... and repeats... and repeats. The app sorely needs options to load a playlist, cue a third-party music app like Spotify or fire up an Internet radio stream. There are third-party apps that will do more, and you're not locked in; I just don't like the idea of having to hunt down something to feel like I got my money's worth from a \$60 radio dock.

—Jon Fingas





Epson EH-TW9000 3D Projector

I'm a total convert when it comes to projectors, but unlike most converts I refuse to take my new religion too seriously. My old Optoma D700x came second-hand off eBay for £400 (\$650). It throws Blu-rays, games and iPlayer at 720p resolution from my PlayStation 3 onto a 12-foot by 5-foot expanse of wall that just happens to be off-white and empty. It's a casual setup that suits me perfectly, but I needed to know: what would happen if I carried on being non-serious, except with some extremely serious equipment? For someone like me, could an upgrade ever be worth it?

For several weeks, then, I duly borrowed a \$4,000 Epson EH-TW9000 — a huge and sophisticated machine that out-classes my little Optoma on every level. I had it up and running in under 20 min-

utes and the impact was readily obvious. Thanks to the flexibility of the LCD projection system (as opposed to rough 'n ready DLP technology in my Optoma), I was able to use large amounts of zoom, horizontal lens-shift and keystone to boost the area of my image by around 30 percent. That made scoped players in Sniper Elite V2 bigger than life-size. The 1080p resolution removed any visible pixelation; Hugo 3D was pretty cool (though I still prefer passive to active); black levels were blacker; there was more brightness for fending off pesky daylight; and, in a word, it was amazing. If I'd gone overboard with a pull-down screen, ceiling mount, calibration and retro airline seats, the amazingness would only have become more refined. In other words, whether you go low-end or high-end, low-effort or finicky, it's arguable that projectors murder even the best TVs when it comes to gaming and movies.

—Sharif Sakr





CHRISTOPHER H. BIDMEAD

Q&A

THE FORMER **DOCTOR WHO** SCRIPT EDITOR AND TECH MAVEN REFLECTS ON HIS GALAXY NOTE, ETCH-A-SKETCH AND NEVER HATING GADGETS.

What gadget do you depend on most?

My new Samsung Galaxy Note's been getting a lot of use lately, but I suppose I still depend hugely on my two home-built Hackintoshes.

Which do you look back upon most fondly?

My Microwriter Agenda and my Sinclair Z88.

Which company does the most to push the industry?

Probably Samsung at the moment.

What is your operating system of choice?

I have a historical and natural affinity to Linux, but probably do most of my real work on Snow Leopard, and more recently Android.

What are your favorite gadget names?

I don't really care what they're called as long as they do their job. A "Gigabit Router" by any other name would work as sweet. (That's Shakespeare, you know.)

What are your least favorite?

iPod docks. But not because of the name. Because I hate them, and they are proliferating like grey rats.

Which app do you depend on most?

I'm not fond of apps; they're a huge step back from the concept of a unifying operating environment that's flexible and functional enough to do everything you need. Browsers come closest to this, so I'd have to say Chrome or Firefox.

What traits do you most deplore in a smartphone?

Dumbness. Defined as the inability to do USB mass storage, Bluetooth file transfer, DLNA, etc, or offer a choice of browsers and soft keyboards. Are we talking about Windows phones here?

Which do you most admire?

Real smartness and flexibility. Android isn't perfect by any means. But it runs rings round anything else I've tried.

What is your idea of the perfect device?

Does everything, connects everywhere, fits in your pocket.

What is your earliest gadget memory?

The Etch-a-Sketch. The iPad of its day (early 1940s).

What technological advancement do you most admire?

The Internet. Linux. Miracles of cooperative development outside the cash nexus that seems to define modern society. I've no idea at all how they managed to flourish in a climate of capitalism.

Which do you most despise?

I try not to do that. I think despite demeans us. I'm certain we've been marching down the wrong path for 30 years with Microsoft Windows, but we seem to be starting to sort that out now.

What fault are you most tolerant of in a gadget?

Most of them. The gadget designer doesn't know me, so she puts the thing together as best she can according to her own principles. It's up to me to devise workarounds.

Which are you most intolerant of?

Dumb stuff. Functions insufficiently generalised. Design based on the designer's necessarily limited experience rather than on broad design principles.

When has your smartphone been of the most help?

It hasn't stopped being hugely helpful since I acquired it at the beginning of this year.

What device do you covet most?

Can't think of anything. Certainly nothing beginning with a small "i".

If you could change one thing about your phone what would it be?

The price. I'd like it to be cheap enough for everybody to have one.

What does being connected mean to you?



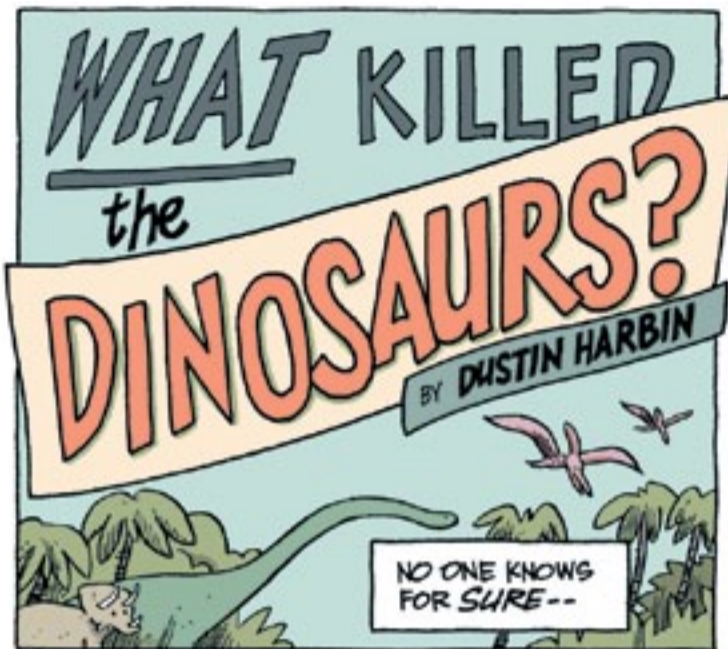
When are you least likely to reply to an email?

When it contains a 21-part questionnaire.

When did you last disconnect?

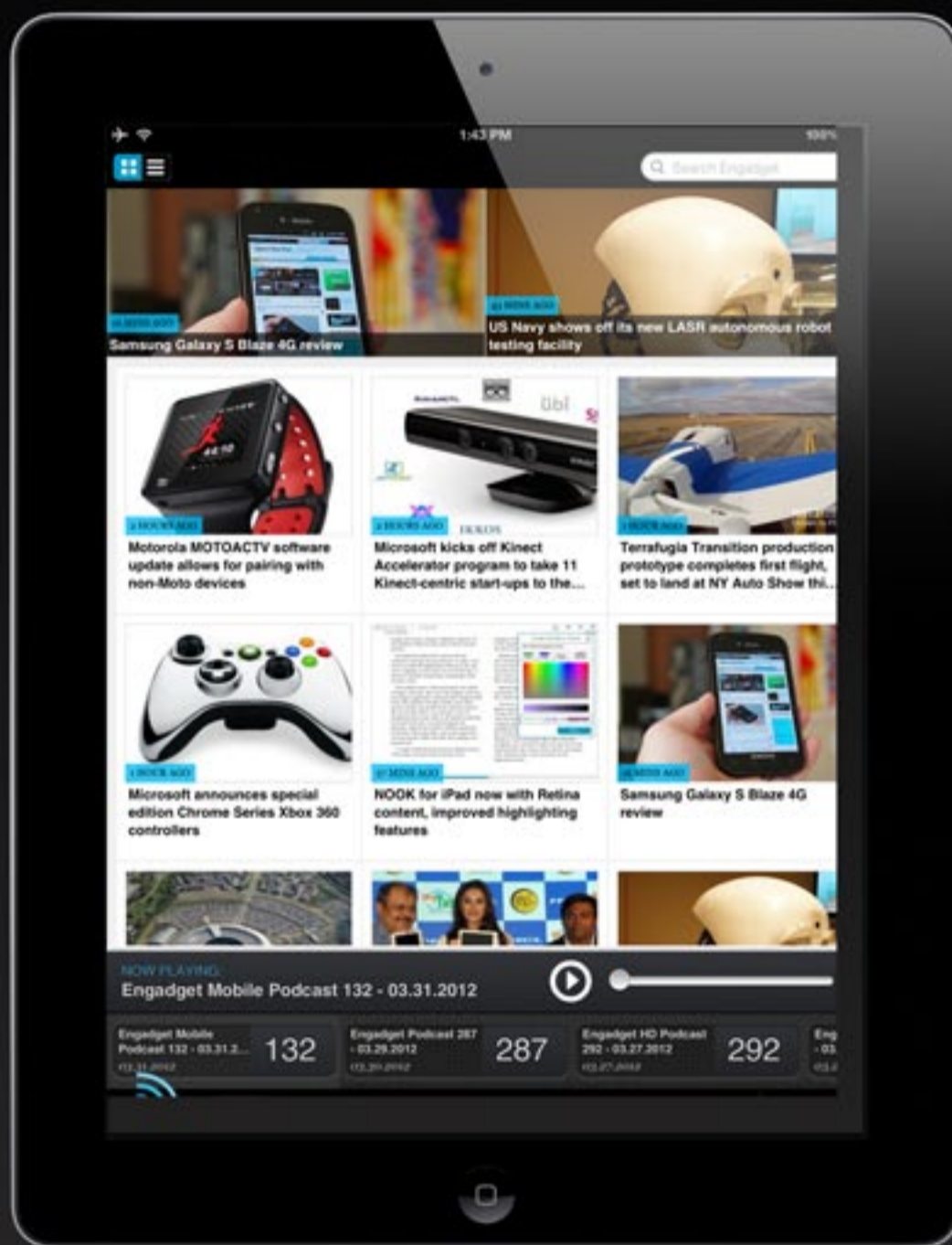
I can't remember that far back. ☑

It means I'm in the 21st century.



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