

# DISTRO

072012 #49

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# HAND

# MADE

# HAVEN

**INSIDE  
ARTISAN'S  
ASYLUM**  
BOSTON'S RAPIDLY  
EXPANDING  
HACKERSPACE

**WHAT'S THE  
BIG IDEA?**  
NINTENDO 3DS XL

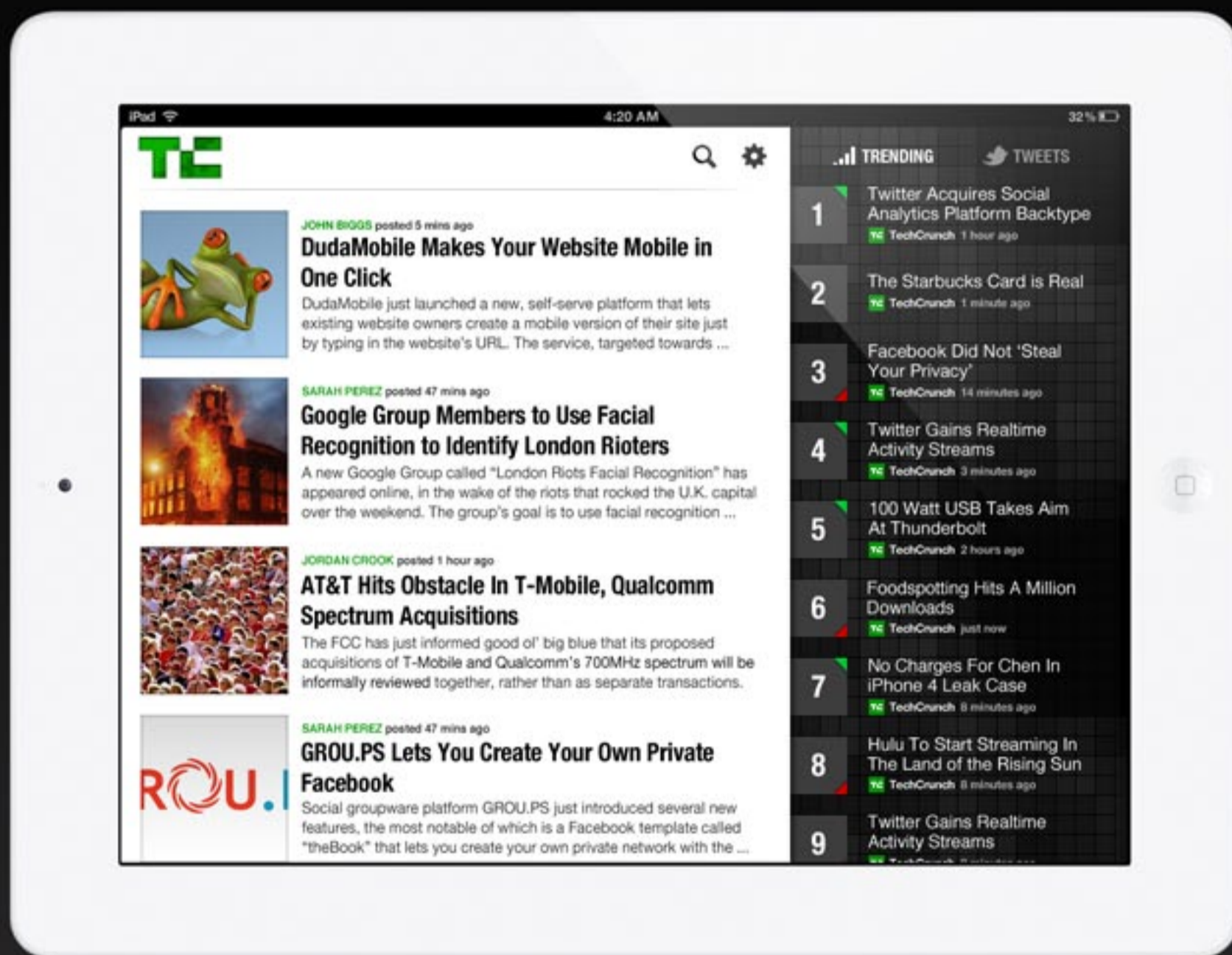
**SONY'S FIRST  
ULTRABOOK**  
THE VAIO T13

**QUAD-CORE  
ROYALTY**  
LG'S OPTIMUS 4X HD



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DISTRO

07.20.12

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# ANOTHER FRESH START FOR YAHOO



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EDITOR'S  
LETTER

**Far and away** the most talked-about story this week was the one that I'm pretty sure nobody outside of a very narrow circle would have seen coming: the appointment of Marissa Mayer as CEO of Yahoo. Mayer was Google's VP of Local, Maps and Location Services, having joined the company as employee number 20 — the first female engineer to sign on with the Big G. That's a very senior position she's walking away from, but recent movements among the executive team there seemed to paint a bleak future for progression for this obviously career-driven individual.

Mayer left Google on Monday and pledged to get started at Yahoo on Tuesday, wasting no time at all before starting her new duties — perhaps because she'll be presumably taking a bit of time off in the not-too-distant future. She's pregnant. That fact was said to have not troubled the Yahoo board a bit, which is encouraging, though there was no comment on just how thoroughly her scholarly and professional background was fact-checked. Presumably that Masters in Computer Science she lists on her resume is, indeed, genuine.

The other big announcements this week came from Microsoft, which finally

put a mark on the long-awaited release of Windows 8. Set your calendars, because Friday, October 26th will be the date that you'll want to stay up late. Downloading the upgrade from the internet won't be quite as exciting as that time you camped out in front of CompUSA for the Windows 95 release, but then few things are. It's unclear whether that will be an international release or just the date for those of us here in the US, but since we're living in a global, digital era, we'd like to think Microsoft will be able to push those bits around the globe without much delay.

We also posted our detailed impressions of the company's upcoming major revision to its suite of productivity tools, Office 2013. The package delivers a number of genuinely useful updates, like easy editing of PDF documents, but falls a bit short on what could be its most crucial feature when used on Microsoft's new tablet-minded OS: touchability. This is definitely the most slate-friendly Office yet, but Excel still feels like it needs a mouse and a keyboard. That's not necessarily a bad thing in my eye — I don't want to be cooking up spreadsheets on a touchscreen.

Skype unleashed one of the most comically bad bugs of all time upon the world



this week, a glitch that could send your chat transcripts at random out to another of your contacts. It might, for example, send the text of your discussion with a co-worker about “letting someone go” out to that very person in question. Oops! Skype characterized the bug as “rare” and quickly announced a fix, but it’s another bruise on the face of an already mottled app.


Thanks to the Brazilian FCC equivalent, we got our eyes on what looks to be a new, cheaper PlayStation 3 model coming from Sony. This model seems to eschew the slot-loading drive found on the first and second models of the console, instead going for a sliding hatch on top into which you can pop your Blu-rays and such — not entirely unlike the original PlayStation. We know nothing about it at this point, but here’s to hoping it won’t borrow another feature idea from the original: having to turn it upside down to play.

The *Wall Street Journal* this week gave us a little more insight into the supposed next generation of iPhone. A new display technology reportedly used in the new iPhone results in a tighter bonding between the sandwich of layers that sit between the surface glass and the glowy subpixels below. The new process gains us a half-millimeter, which sounds comically minor but, in the race to wafer thinness, is a promising improvement. Plus, moving those pixels closer to the surface should result in greater image quality.

We also got a glimpse at something rather older: prototype O35. This is an early tablet from Apple that supposedly

dates to somewhere between 2002 and 2004. This Pentium M-powered slate looks to have a roughly 12-inch display and is nearly an inch thick, sporting a white plastic back that makes it look like an economy-sized iPod. The product, of course, never came to be, but it’s said this is the first tablet model that started to *feel* right, and would ultimately lead to the creation of what we know as the iPad.

Finally, another hugely important slate is properly shipping en masse this week: the Nexus 7 from Google and ASUS. There were sporadic retail sightings last week and a lucky few were able to get their hands on the \$199 thing, but this week shipments are being properly fulfilled.

In this issue we’re venturing into the Artisan’s Asylum just outside of Boston, an amazing hackerspace that created the woody cover you just saw. We have reviews of Nintendo’s plus-sized 3DS XL, LG’s quad-core Optimus 4X HD and Sony’s first Ultrabook, the VAIO T13. We get our hands on the business end of an F-35 Lightning II, Ross Rubin talks about Office on Windows 8 in *Switched On*, and AllThingsD’s Mike Isaac kindly submits to some Q&A. All this and more — just one finger-tap away. 



TIM STEVENS  
EDITOR-IN-CHIEF,  
ENGADGET



# ENTER

DISTRO  
07.20.12

EYES-ON

WHAT'S NXT

When it debuted earlier this year, Sony's NXT series — composed of a three-tiered collection of Android handsets — brought with it a distinct design language, dubbed “Iconic Identity,” which is defined by a transparent navigation bar and a geometric build. The Xperia S, P and U all vary in price and performance, but there's no denying the family resemblance.



Tap for detail



XPERIA U



XPERIA P



XPERIA S





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# LOCKHEED MARTIN F-35 LIGHTNING II COCKPIT DEMONSTRATOR

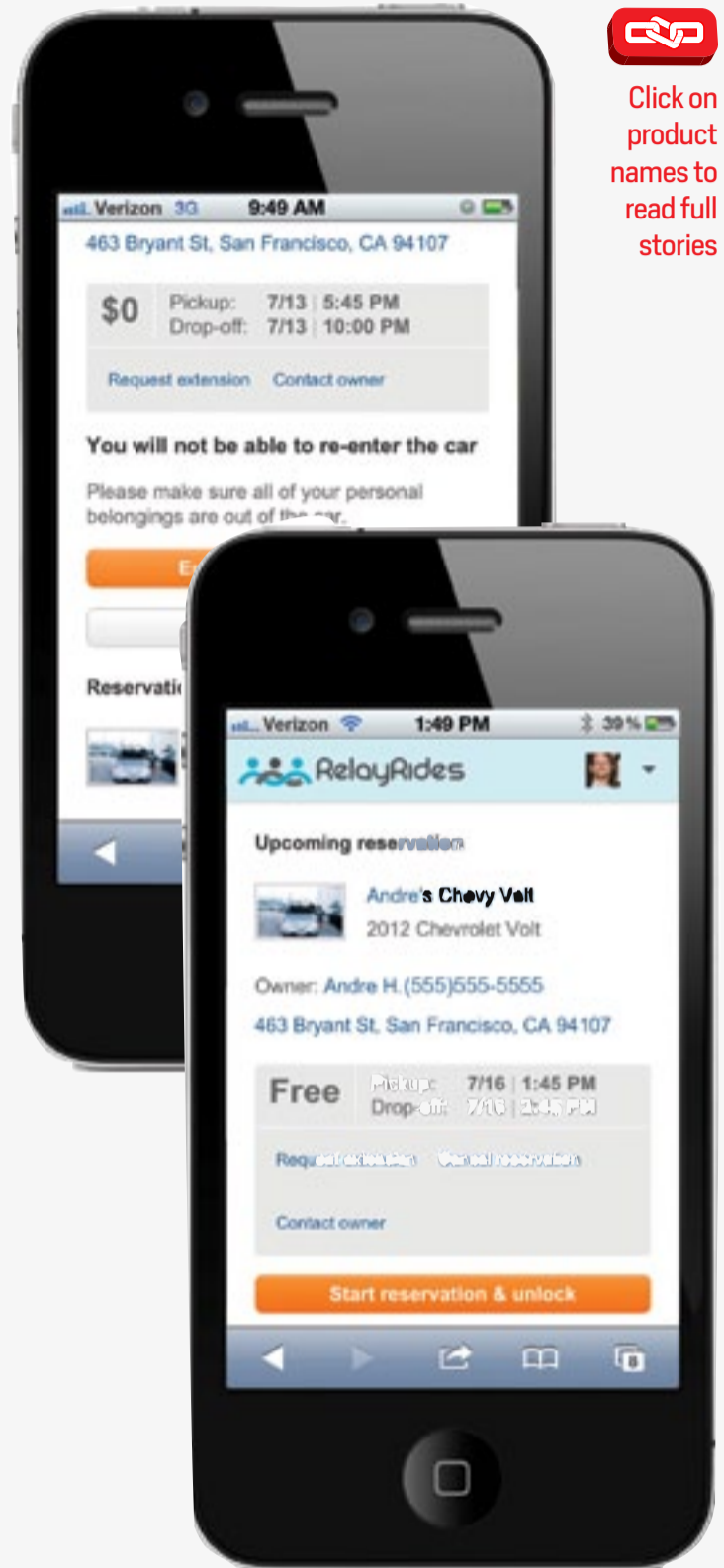
**THE BREAKDOWN:**  
THE F-35'S  
COCKPIT SHOWS  
OFF LOCKHEED'S  
MUSCLE WITH A  
SLEW OF HIGH-TECH  
WAR GADGETRY.

**THIS ISN'T YOUR** ordinary 4D, sickness-inducing amusement park thrill. The F-35 is by far the most advanced Lockheed jet to date, with updated radar, all-internal weapons, improved tracking systems, 360-degree infrared coverage with a visor readout, and a full-stealth design. All of this works alongside the incredibly capable glass cockpit powered by more than 9.3 million lines of software code, and an overall smoother experience for pilots that could end up spending shifts of 12 hours or longer in flight. We flew a simulated mission within a grounded

duplicate of the flyable F-35 cockpit.

The dual 8 x 10-inch touch-enabled displays combine to give you 8 x 20 inches of real estate, with dedicated modules for the weapons systems, targeting, and navigation easily accessible. You can also move them to different panels depending on your current objective. A pair of joysticks at the left and right side provide direct access, letting you move a cursor to track enemy crafts or ground-based targets as well, and a very slick heads-up display mounted in the helmet provides infrared mapping and instrument readouts.





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# RELAYRIDES WITH ONSTAR

**THE PARTNERSHIP BETWEEN** OnStar and RelayRides came to fruition this past week, with the car sharing service launching remote door unlocking via the former's proprietary API. This means RelayRides members with OnStar-enabled vehicles no longer have to exchange keys in person. We had the chance to test an early version on a Chevy Volt a few months ago and it worked as advertised. There was a delay between the time we sent the command from RelayRides' website and the moment the doors unlocked on the car, but we're told this has been significantly improved since. Of course, RelayRides also supports remote unlocking via text message.

## PRICING:

**COST OF RENTAL**

## AVAILABILITY:

**NOW AVAILABLE**

## THE BREAKDOWN:

**ONSTAR'S API MAKES  
LIFE EASIER FOR  
RELAYRIDE USERS  
THANKS TO REMOTE  
UNLOCK FROM MOBILE  
DEVICES.**







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## VEHO MUVI HD NPNG EDITION

**The latest member** of the Muvi HD family will do you full HD at 30fps, along with 720p (at both 30 and 60 fps) plus the usual other resolutions. It'll also do stills and even just record audio. What really got us interested, though, is the inclusion of a viewfinder / screen and a remote control standard. We think the results are very respectable, with decent color contrast and no rolling shutter effect. Around the edges, some pixelation can be noted, but not to the level of distraction. Still photos appeared a bit washed-out at times, but this can often be a hit-and-miss feature.

**PRICING:** £199 (\$230)

**AVAILABILITY:**  
NOW AVAILABLE

**THE BREAKDOWN:**  
PRICE TAG AND FORM  
FACTOR ALONGSIDE SOLID  
VIDEO QUALITY GIVE THIS  
ACTION CAM POTENTIAL.

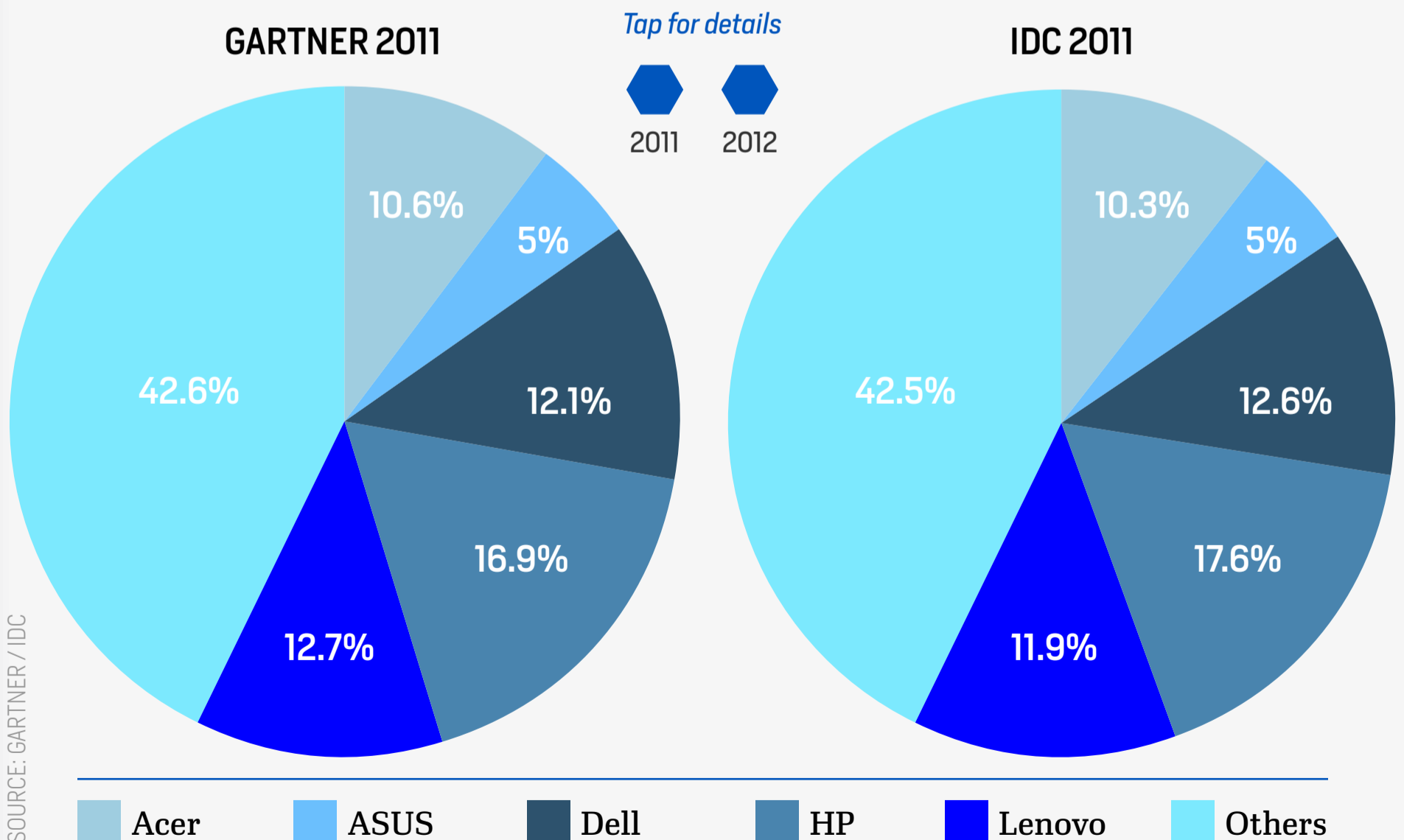


# Traditional PCs Take a Beating

**Microsoft's Steve Ballmer** might be working overtime to keep Apple at bay, but the PC market that his company largely built is hurting, if you ask researchers at Gartner and IDC. Both estimate that shipments of traditional computers dropped by a tenth of a point in the second quarter of 2012 — not a good sign when Intel's Ivy Bridge processors and a wave of Ultrabooks were supposed to usher in a PC renaissance. While the exact numbers vary, the two paint

a partly familiar picture of the world stage: HP and Dell are taking a bruising, while ASUS and Lenovo are making huge leaps forward. Depending on who you ask, though, Acer is either kicking Dell down to fourth place or occupying that all-too-comfortable spot itself. The economy and tablets are once again blamed for making would-be PC upgraders jittery, although this time it may also be the wait for Windows 8 leading some to hold off. —*Jon Fingas*

## WORLDWIDE PC MARKET SHARE



# NEVER REMOVED FROM THE BOX

DISTRO  
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ENTER

REACTION  
TIME



BY LUDWIG KIETZMANN

**I've already bought several** games during this year's Steam Summer Sale, including *The Legend of Grimrock*, an old-fashioned dungeon crawler with a modern veneer. Good for me! Oh, except *The Legend of Grimrock* is a PC game. I don't even have a PC right now, and I've never bothered to set up a dual-boot partition on my MacBook Air. The dread of missing out on the deal was so great, it overwhelmed the fact that I don't even have the right equipment for the game.

It happens every year, as Valve gets more and more adept at shaving off costs and doling out deals at the perfect pace — slowly enough to keep you coming back, but not fast enough to let you realize that you're spending something you don't have.

Money isn't the problem. Spending \$5 on the latest indie gem, even if it's buried in a shopping minecart of indie gems, won't be the death of you. The actual death of you, however, might be slightly more prohibitive when it comes to buying all these games. When are you going to find time to play all this stuff?

Steam's inevitable annual sale feels like a grim reminder of my own mortality. "You're never gonna get through all this stuff!" it yells, and every year I give it a more powerful megaphone and a handful of spare change. At some point in your adult life, you realize that there just isn't enough time to consume all the media that interests you, and that situation only becomes more grim if you're a gamer, a movie buff and an avid reader all in one. (And don't even think about squeezing in the occasional 100-volume manga.)

Having realized this, but done nothing to stop the steady excursion of two dollars, three dollars, five dollars and another four dollars from the bank account, it seems there are other reasons to buy games on a Steam sale — besides, you know, to play them. Perhaps there are noble intentions behind my seemingly thoughtless acquisition of *Legend of Grimrock* — which I intend to play as soon as I get a proper PC again, one day, I swear.

Buying a Steam game is like buying a T-shirt bearing a reference to one of your favorite characters, and in fact it's even cheaper than that. In an age where even the minutiae of a quick Steam shopping spree can be shared and discussed in so-



cial networks online, buying a game, even when you may never get to play it, says something about you and your tastes. You want people to have some idea of what you like, just as much as you would like publishers to know what kind of ideas you'd like to support (albeit at much less considerable risk to you, by the time it gets to Steam's chopping block.)

A more apt comparison might be in the humble bookshelf. Though its utility has become eroded in light of electronic readers that can handily store everything you could fit on a hundred wooden rows, it can still be a centerpiece in any home and an easily decipherable glimpse into your tastes and passions. What does your Steam collection say about you, if not that you have a great deal more money than time?

It's a shame that so many games will go unplayed in our lifetimes despite our best efforts, but perhaps there's value in voting at a few bucks per ballot. If I never get around to playing *Legend of Grimrock*, at least I can say that I've supported the idea, the developer and the hard work that led to enough positive reviews to put the game on my radar in the first place. And while it would be easier to evangelize the game's virtues in detail, right now my Steam purchase list does a quicker job of it.

Alternatively: This is all just a huge, delusional rationalization to conceal my deleterious addiction to Steam sales and a backlog that stretches well beyond my gravestone. **D**

## 4 NEW GAME RELEASES FOR THE WEEK OF JULY 20TH



Click on  
games  
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### DYAD

PlayStation Network - \$15



### GHOST RECON: FUTURE SOLDIER ARCTIC STRIKE DLC PACK

Xbox 360, PS3 - \$10



### HEROES OF RUIN

3DS - \$40



### MASS EFFECT 3: EARTH MULTIPLAYER EXPANSION

Xbox 360, PS3 - Free



# The Future of News as We Know It

Edited by Joshua Benton  
*Nieman Journalism Lab*

**We've featured** the Nieman Journalism Lab on these pages before, but those not familiar with the site (produced by Harvard's Nieman Foundation) now have a great way to get caught up courtesy of its very first e-book. *The Future of News as We Know It* collects what the site deems to be its best work from the month of June. It's a 315-page compilation of articles covering a range of topics in both old and new media — everything from the challenges newspapers are facing to the ever contentious issue of internet comments. The compilation format can lead to a bit of a disjointed reading experience if you're intending on plowing through it cover to cover (so to speak), but editor Joshua Benton has grouped things into some more manageable chapters, making it easy to jump around between articles. Best of all, it's completely free, and available in both ePub and Kindle formats.



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**The Great Pretender: Turing as a Philosopher of Imitation**  
by Ian Bogost, *The Atlantic*  
The buzz about Alan Turing may have died down slightly following the 100th anniversary of his birth last month, but he's still commanding some well-deserved attention for his centenary year. This latest must-read piece comes courtesy of researcher / game designer Ian Bogost, who's turned to Marshall McLuhan for some new insight into Turing's life and work.

**Canada's Vanishing Tech Sector**  
by Sean Silcoff and Iain Marlow  
*The Globe and Mail*  
The most valuable Canadian tech company? Not RIM. It's now SXC Health Solutions Corp., a medical software provider that has its head office in Chicago and is all but unknown to most Canadians. As this piece from the *Globe* makes clear, that's a worrying sign for the entire industry, but there are some who see signs of hope.

**Peace, Love and Tumblr**  
by Rob Walker  
*The New York Times*  
It's far from the first in-depth profile of Tumblr and its 26-year-old founder David Karp, but this new piece in *The New York Times* by Rob Walker comes at a key time for the social network / blogging service. It's now venturing into the world of advertising, attempting to find ways to make money without compromising its original guiding principles.

**Clamshell! The Story of the Greatest Computing Form Factor of All Time**  
by Harry McCracken  
*Time Techland*  
Talk of the post-PC era and tablets replacing laptops may be endless these days but, as Harry McCracken notes in this *Techland* piece, it's hard to see the venerable clamshell design ever going completely away. To explain why, he looks back at the origins of the design and many of the key points throughout its history.



# REVIEW

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Sony  
VAIO T13



LG  
Optimus  
4X HD



Nintendo  
3DS XL



## SONY VAIO T13



While easy on the eyes and the wallet, the **Sony Vaio T13** shoots for the middle and squarely hits its mark.  
By Sarah Silbert

**Until recently**, Sony's name has been conspicuously absent on the ever-growing list of Ultrabook makers. Sure, we've known about the VAIO T series since CES, when the company teased an unnamed notebook behind glass, but it didn't get its official reveal until May, when it hit the European market – with last-generation Sandy Bridge processors. That's no way to make a splash when Ivy Bridge CPUs are now de rigueur for Ultrabooks and mainstream laptops alike.

Luckily, Sony got things right on the US side, releasing the 13-inch VAIO T13 with Ivy Bridge



processors in tow. Other than those new chips, the Ultrabook features identical specs to the European model, not to mention the same brushed silver aluminum design. And while the brand is in for a serious game of catchup as it enters an already-crowded market, its VAIO T is priced to compete at \$770. Let's welcome Sony to the Ultrabook game by giving the T13 the full review treatment.

## LOOK AND FEEL

The VAIO T13's brushed-aluminum design, in an icy, elegant shade of silver, is attractive, especially for an Ultrabook with a budget price. It's not just the lid, accented by the VAIO logo in a light-reflecting silver, that had us wide-eyed: sweet touches like the reflective silver hinge make it clear that design was top of mind for Sony in crafting this machine.

That's not to say the T13 takes the Ul-

## The laptop's boxy frame is a counterbalance to the premium feel.

trabook design cake. While a sleek aesthetic is appreciated, if not expected, so is an extra-slim profile. The laptop's boxy frame is a counterbalance to the premium feel: there's no tapered chassis or curved edges here, and the bezel is quite wide, too. At 0.71 inches thick, the laptop isn't chunky, per se, but it does look chubby next to the Acer Aspire S3 (0.5 inches thick, 3 pounds) and the HP Envy Spectre XT (0.57 to 0.69 inches thick, 3.07 pounds). It's not the thickest machine out there, to be sure – the HP Folio 13 also measures 0.71 inches at its widest – but at 3.45 pounds the T13 is one of the heaviest.

At least the T13's relatively thick chassis affords a generous selection of ports. An Ethernet jack, VGA port, HDMI out and a full-size SD card slot are on board, not to mention one USB 2.0 and one USB 3.0 connection. There's also a card reader on the right side, along with the headphone output, while the power port sits on the left edge.



The T13 brings a boxy frame to the Ultrabook party.





Overly spaced keys make for difficult typing.



## KEYBOARD AND TRACKPAD

Sony naturally had to cut corners to keep the price so low, with the keyboard being the most obvious example. The T13 sports a spacious, island-style layout – almost too spacious, in fact. Even with pianist's hands, yours truly frequently mistyped or dropped letters due to the distance between keys. The keys are incredibly shallow as well, which might explain why they often failed to register our presses. Of course, many Ultrabooks suffer from shallow layouts. Even so, the thinnest machines are often the worst culprits, and the T13 is hardly the sveltest in its category. When we performed the Ten Thumbs Typing Test, we scored 20 words per

minute less than usual, with a higher-than-normal error rate of five percent. While many Ultrabooks include keyboard backlighting, that feature is MIA on the T13, which shouldn't come as much of a surprise given its price tag. Still, there's no option to add it for an additional fee.

The T13's Synaptics clickpad is plenty responsive, executing gestures such as pinch-to-zoom and swiping up and down seamlessly. The built-in buttons accurately recognize right and left clicks, and good palm rejection means you won't have to contend with a wayward cursor floating across the screen as you type. Our one complaint about the clickpad is its size: at 3.9 x 2.3 inches, it covers significantly less



area than the touchpad on the Lenovo IdeaPad U310 (4.1 x 2.9 inches). A more spacious design would certainly be more comfortable.

## DISPLAY AND SOUND

We weren't blown away by the T13's display, which features a standard 1,366 x 768 resolution and kicks back plenty of glare due to its glossy finish. When we watched a few trailers on YouTube, colors looked accurate but not as rich as they have on other laptops' panels. Viewing angles aren't great either: both vertically and horizontally, moving off-center will cause images to appear washed out.

Audio quality on the T13 is similarly middling. Sony used Clear Phase technology for crisper sound and xLoud volume-boosting tech to enhance your listening experience with the built-in speakers. The good news is that sound is indeed quite loud; you should have no trouble filling a small- to medium-sized room. The downside is that you can expect plenty of tinniness. When we streamed music over Spotify, an unpleasant metallic buzz made it harder to enjoy our favorite tracks. Sadly, the speakers don't deliver much bass, either.

## PERFORMANCE

The VAIO T13 is configurable with up to a Core i7 Ivy Bridge processor, 8GB of RAM and a 512GB SSD, but the model we tested ran a Core i5 CPU clocked at 1.7GHz with 4GB of memory and a 500GB hard drive combined with a

LAPTOP	PCMARK VANTAGE	3DMark06
SONY VAIO T13 (1.7GHZ CORE I5-3317U, INTEL HD GRAPHICS 4000)	8,188	3,847
MACBOOK AIR (2012, 1.8GHZ CORE I5, INTEL HD GRAPHICS 4000)	13,469	5,827
ASUS ZENBOOK UX31 (1.7GHZ CORE I5-2557M, INTEL HD GRAPHICS 3000)	10,508	4,209
ASUS ZENBOOK PRIME UX21A (IVY BRIDGE CORE I7 PROCESSOR, INTEL HD GRAPHICS 4000)	10,333	4,550
LENOVO IDEAPAD U300S (1.8GHZ CORE I7-2677M, INTEL HD GRAPHICS 3000)	9,939	3,651
SAMSUNG SERIES 9 (15-INCH, 2012, 1.6GHZ CORE I5-2467M, INTEL HD GRAPHICS 3000)	10,580	4,171
LENOVO IDEAPAD U310 (1.7GHZ CORE I5-3317U, INTEL HD GRAPHICS 4000)	8,345	4,549
HP ENVY SLEEKBOOK 6 (2.1GHZ AMD A6-4455M, RADEON HD 7500G GRAPHICS)	3,978	3,625
MACBOOK AIR (2011, 1.7GHZ CORE I5-2557M, INTEL HD GRAPHICS 3000)	9,484	4,223

NOTE: HIGHER SCORES ARE BETTER



32GB SSD. In our usual benchmarks, the T13 performed similarly to the IdeaPad U310 and the HP Envy Sleekbook 6, and its average write speeds of 92.5 MB/s and reads of 131 MB/s are far from impressive. Still, in day-to-day use this machine is a capable performer.

A 3DMark06 score of 3,847 doesn't suggest out-of-this-world graphics performance, but while we've seen systems with Intel HD Graphics 4000 score significantly higher, the T13's modest frame rates are what you'd expect – and they're good enough for some casual gaming. While there's no discrete GPU on board to help shoulder the workload, the T13 managed a playable 30 frames per second in *World of Warcraft* with the resolution set at 1,366 x 768 (maxing out the graphics takes that down to 15 fps). In *Batman: Arkham City*, we got an average of 40 fps.

Sony says the T13 wakes from sleep in “about two seconds,” and while it took five in our tests, it has all the responsiveness you'd expect from an Ultrabook. Cold-booting into Windows 7 Home Premium takes 19 seconds, which is on par with other ultraportables. (By comparison, the Lenovo IdeaPad U300s, the HP Folio 13 and the new MacBook Air all take 18 seconds.)

## BATTERY LIFE

When it comes to longevity, the T13 falls somewhere between outstanding and abysmal. Its runtime of five hours and 39 minutes puts it ahead of sys-

LAPTOP	BATTERY LIFE
SONY VAIO T13	5:39
SAMSUNG SERIES 9 (15-INCH, 2012)	7:29
SAMSUNG SERIES 9 (13-INCH, 2012)	7:02
LENOVO THINKPAD X230	7:19
MACBOOK AIR (13-INCH, 2012)	6:34 (OS X) / 4:28 (WINDOWS)
HP FOLIO 13	6:08
HP ENVY SLEEKBOOK 6	5:52
TOSHIBA PORTEGE Z835	5:49
ASUS ZENBOOK UX31E (2011)	5:41
MACBOOK AIR (13-INCH, 2011)	5:32 (OS X) / 4:12 (WINDOWS)
HP ENVY 14 SPECTRE	5:30
LENOVO IDEAPAD U300S	5:08
SAMSUNG SERIES 5 ULTRABOOK (14-INCH, 2012)	5:06
DELL XPS 13	4:58
LENOVO IDEAPAD U310	4:57
SAMSUNG SERIES 9 (13-INCH, 2011)	4:20
ASUS ZENBOOK PRIME UX21A	4:19
ACER ASPIRE S3	4:11



tems like the Samsung Series 5 and the ASUS Zenbook Prime UX21A, but the Samsung Series 9 and the MacBook Air outlast it by about an hour and a half.

## SOFTWARE

The T13 comes with Sony's VAIO Gate, an app launcher that sits at the top of the screen. Hover with your cursor, and it reveals shortcuts to several programs, including the company's branded VAIO media software, Skype, Internet Explorer and ArcSoft WebCam Companion 4. (You can also customize the Gate with shortcuts to other programs.) In any case, it just seems a little pointless, given that Windows 7 allows you to pin both programs and files to the Taskbar.

As far as Sony's own software goes, you get Media Gallery for enjoying your photos, videos and music; PlayMemories for importing and organizing your media; Music Unlimited and Sony VAIO Care. If you're not a fan of the Gate, you can prevent it from launching at start-up, though it can't be uninstalled. Sony also pre-loads Microsoft Office 2010 Starter and a 30-day trial of Kaspersky Internet Security.

## CONFIGURATION OPTIONS

Though our configuration of the T13 goes for \$800, the entry-level model costs \$770. For that price, you get a Core i5 CPU, 4GB of RAM, and 320GB of storage paired with a 32GB SSD. Shell out \$1,000 and you'll get a Core i7 CPU clocked at 1.9GHz, 6GB of on-

board memory and a 500GB hard drive paired with a 32GB SSD. A \$1,200 version steps up to a 128GB SSD with 6GB of RAM, while the top-of-the-line model goes for \$2,100 with a Core i7 CPU, a 512GB SSD, 8GB of RAM and Windows 8 Professional instead of the standard Windows 7 Home Premium.

## THE COMPETITION

If the VAIO T13 is on your shopping list, you're likely looking for a value-priced system. In other words, the \$1,300 Samsung Series 9 and \$1,200-plus MacBook Air might cost more than you were hoping to spend. We'll list a few relatively affordable alternatives to the T13 for you below. As you'll notice if you research any of our recommendations, the T13 is more configurable than most Ultrabooks, but it's still far from your only option.

The 14-inch Samsung Series 5 starts at \$949, and while its 3.94-pound weight is pushing it for an Ultrabook, the design is thick enough to include an optical drive, and you can expect decent performance thanks to its Core i5 processor

**For an Intel-approved system that keeps the price well south of one grand, the VAIO T13 is a respectable specimen.**



DISTRO  
07.20.12

# SONY VAIO T13

REVIEW



The display sports a standard 1,366 x 768 resolution.

and hybrid hard drive. You'll have to shell out more for a solid-state drive (the base configuration comes with a 500GB HDD) though, and this guy trails the T13's five-hour, 39-minute battery life by nearly a half-hour.

Another modestly priced option is the Dell XPS 13, which for \$999 offers a comfortable keyboard, a 128GB SSD and a Core i5 CPU that

delivers snappy performance. At 2.99 pounds, it's also significantly lighter than the T13. There's also the HP Envy Spectre XT, which starts at \$1,000 and has many of the same specs as Sony's Ultrabook (Ivy Bridge CPU, 1,366 x 768 display, USB 3.0 and an Ethernet port) but includes a 128GB SSD and boasts a backlit keyboard.



Lenovo's IdeaPad U310 should draw obvious comparisons as well. For \$799, the 13-inch U310 has a Core i5 Ivy Bridge CPU and 500GB of storage plus a 32GB SSD. While our review of this laptop is still to come, we went hands-on at CES and have listed its benchmark scores in the table in the performance section.

We'll submit one more notebook for consideration: the HP Envy Sleekbook 4t. Though this isn't an Ultrabook (the entry-level Sleekbooks ship with AMD APUs inside or otherwise don't meet Intel's Ultrabook requirements), a model configured with similar specs to the T13's (Core i5 Ivy Bridge CPU, Intel HD Graphics 4000 and a 500GB hard drive) costs \$800, and comes with Beats Audio.

## WRAP-UP

A budget-friendly Ultrabook is almost an oxymoron. Usually, the thinner the laptop, the higher the

price. Solid-state drives and nice-to-have extras like backlit keyboards and high-res displays don't come cheap, either. For an Intel-approved system that keeps the price well south of one grand, the VAIO T13 is a respectable specimen. Though it's hardly the thinnest Ultrabook, it has a sturdy, attractive design, and it packs enough processing power to see you through word processing, web surfing and casual gaming.

What *might* hold you back, though, is that flat keyboard. Shallow keys and some uncomfortably wide spacing add up to an uncomfortable typing experience, so we'd recommend giving the laptop a test run in the store before making a commitment. In any case, Sony now has a horse in the Ultrabook race, and we have a feeling there will be more to come. **D**

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*Sarah is Reviews Editor, a wannabe tap dancer and a closet film critic.*

## BOTTOMLINE

### SONY VAIO T13 \$770+



#### PROS

- Attractive brushed silver design
- Priced to compete
- Good everyday performance
- Highly configurable

#### CONS

- Uncomfortable keyboard
- Heavy for an Ultrabook

#### BOTTOMLINE

Sony's first Ultrabook boasts a budget-friendly price and an attractive design, but it's not the highest-performing or longest-lasting system out there.



## LG OPTIMUS 4X HD



The **LG 4X HD** is at the top of its game, but may have to settle for runner-up in the race to the quad-core throne.  
**By Myriam Joire**

**LG has an ongoing** smartphone problem: despite a few valiant efforts (the G2x comes to mind) the company continues to live in the shadow of rival Samsung. Most of this malaise can be attributed to hit-and-miss hardware combined with lackluster software (we're looking at you, Spectrum). Last February, at Mobile World Congress, LG spiced things up with an attractive collection of devices including the Optimus L7, Optimus Vu and Optimus 4X HD — the latter being one of the first quad-core handsets announced. Now, six months later, we live in a world where



## It's the kind of phone you'd expect James Bond to accessorize his tuxedo with.

the global versions of HTC's One X and Samsung's Galaxy S III dominate the superphone market and share the quad-core crown. With me-too features like a Tegra 3 processor, 4.7-inch HD display, 8-megapixel camera and Ice Cream Sandwich on board, the Optimus 4X HD appears ready to play in the big leagues. Does it succeed or is it just a flash in the pan? Is it all style over substance or does it bring something unique and meaningful to the table?

### HARDWARE

If Samsung's Galaxy S III occupies the curved, organic, pebble-like end of the design spectrum, LG's Optimus 4X HD is the polar opposite — angular, manufactured, slab-like. With this handset, it's easy to assume that LG's skating where the puck used to be (the squarish Galaxy S II) until you notice the family resemblance — the Optimus L7 and Optimus Vu share the same aesthetic. As with the One X, there's something instantly likeable about the 4X HD's proportions. Where the Galaxy S III's graceful lines take a while to grow on you (the white one being our favorite),

LG's quad-core Optimus grabs your attention from the onset. Our white review unit (it's also available in black)

is particularly striking — this is a safe, but elegant design, the kind of phone you'd expect James Bond to accessorize his tuxedo with. Build quality is solid, with no flexing or creaks but the One X's machined, polycarbonate unibody still trumps the Korean competition — like the Galaxy S III, the 4X HD's plastics look and feel a little cheap for a flagship.

In front, the Optimus 4X HD is all Gorilla glass. A white bezel surrounds the 4.7-inch display, interrupted only by three backlit, capacitive buttons at the bottom and the proximity sensor, earpiece, LG brand and 1.2-megapixel front-facing shooter up top. That silver LG logo looks like an afterthought right below the earpiece's tastefully recessed

The Optimus 4X HD is one super slab-like block of sexiness.





white mesh grille. It's worth noting that those capacitive keys are invisible until backlit and difficult to see in bright sunlight so you'll have to memorize the order: back, home and menu (from left to right). Yes, like Samsung with the Galaxy S III, LG's clinging on to some vestigial menu button instead of rightfully providing a recent apps key. While a long press of the home button brings up the recent apps list, the 4X HD's key layout is the exact reverse of the Galaxy S III's. Why is it that, two Android versions beyond Gingerbread, manufacturers still can't agree on button placement? Here's a hint Samsung and LG: Ice Cream Sandwich and Jelly Bean already provide a standard key layout — use it.

Flip the Optimus 4X HD over and you're greeted by a vast, white, textured and removable plastic back cover adorned with an 8-megapixel autofocus camera mounted in a flush, machined aluminum pod and flanked by a single LED flash (top left), another LG logo (embossed and centered below) and two horizontal slits covering the mono speaker (bottom left). Like with the earpiece on the front, the attention to

**The battery door's edges are beveled and contribute to half of the handset's thickness.**

detail and the fit and finish are impressive. The battery door's edges are beveled and contribute to about half of the handset's 8.9mm (0.35-inch) thickness, making the 4X HD extremely comfortable to hold despite its chiseled build. Speaking of thickness, it's not the only measurement that's on par with the competition — at 141g (4.97 ounces) and 132 x 68mm (5.2 x 2.68 inches), weight and footprint are also similar. Pop the back cover off and you'll find an NFC antenna embedded in the back of the door, with matching contacts on the phone next to the standard SIM holder and microSD card slot above the removable 2,150mAh Li-Ion battery.

What's left of the sides of the Optimus 4X HD — the flat half that's not a part of the beveled back cover — is delimited by two chromed-plastic rims, one following the edge of the front glass, the other meeting the seam of the battery door. This white plastic area is host to various connectors and buttons: a standard 3.5mm headphone jack, secondary mic and power/lock key on top; a micro-USB / MHL port, primary mic at the bottom; a volume rocker on the left; and nothing on the right. Here again, LG shows impeccable craftsmanship, with a subtle, recessed, pyramid-like pattern adorning the white plastic left and right sides, and the volume rocker protruding just enough to be located by feel.

Sadly, the Optimus 4X HD's "True HD IPS" capacitive touchscreen falls



SPECS	LG OPTIMUS 4X HD
PRICING	APPROXIMATELY €490 / \$590
DIMENSIONS	5.2 X 2.68 X 0.35 INCHES (132 X 68 X 8.9MM)
WEIGHT	4.97 OZ. (141G)
SCREEN SIZE	4.7 INCHES (119MM)
SCREEN RESOLUTION	1,280 X 720 PIXELS (312PPI)
SCREEN TYPE	TRUE HD IPS
BATTERY	2150MAH
INTERNAL STORAGE	16GB (12GB AVAILABLE)
EXTERNAL STORAGE	MICROSD, NONE INCLUDED
REAR CAMERA	8MP, AF, LED FLASH
FRONT-FACING CAM	1.2MP
VIDEO CAPTURE	1080P HD 30FPS
NFC	YES
RADIOS	QUADBAND GSM / EDGE; QUADBAND UMTS / HSPA (850 / 900 / 1900 / 2100MHZ)
NETWORK SPEEDS	HSPA+ 21MBPS
BLUETOOTH	V4.0 LE
SOC	NVIDIA TEGRA 3
CPU	1.5GHZ QUAD-CORE ARM CORTEX A9
GPU	ULP GEFORCE
RAM	1GB
MHL	YES
WiFi	802.11 B/G/N
OPERATING SYSTEM	ANDROID 4.0.3
SUPPORTED MULTIMEDIA FORMATS	DIVX / XVID / MP4 / H.264 / H.263 / WMV / MP3/ WAV/ WMA / EAAC+



## The problem with the display is glare, especially in direct sunlight.

short of the One X's phenomenal Super LCD 2 and the Galaxy S III's brilliant Super AMOLED displays. It's certainly a fine 4.7-inch, 1,280x720-pixel panel in its own right — non-PenTile and bright, with deep blacks, natural colors and respectable viewing angles. The problem is glare, especially in direct sunlight and when looking at the screen from vertical angles greater than 30 degrees. We suspect that this is the result of the display not being bonded to the front glass — a glaring omission (pun intended). This deficiency can somewhat be overcome by boosting the screen brightness, but at the expense of battery life, of course.

Spec-wise, the Optimus 4X HD ticks pretty much every superphone checkbox other than LTE — but hey, that's what LG's Optimus LTE II is for, right? Under the hood lurks NVIDIA's now-familiar 1.5GHz quad-core (4-PLUS-1) Tegra 3 SoC powerhouse, 1GB of RAM, 16GB of built-in storage, quadband HSPA+ 21Mbps (850 / 900 / 1900 / 2100MHz) plus quadband EDGE (850 / 900 / 1800 / 1900MHz) unlocked radios, WiFi b/g/n, Bluetooth 4.0 LE, GPS / AGPS and NFC. Practically speaking, this means you'll be able to enjoy the 4X HD almost anywhere in the world except on AWS 3G

networks like T-Mobile in the US and Wind in Canada (we used an AT&T SIM without any issues). While the microSD card slot can be mounted as a USB mass storage device, the only way to access the 16GB of internal flash is via MTP or PTP. The usual array of sensors tops off the features list, including ambient light, proximity, compass, accelerometer and gyroscope. Unfortunately, there's no notification LED.

## PERFORMANCE AND BATTERY LIFE

From the moment we put our mitts on the Optimus 4X HD, it was clear that this handset is no slouch. That's to be expected, considering the athletic Tegra 3 chip hiding within. Still, LG has a history of riddling its top-notch hardware with sub-par software. Thankfully, the company's mild Ice Cream Sandwich customizations have kept the stock performance (and experience) mostly intact. The 4X HD feels snappy across the board, as confirmed by our suite of benchmarks. Other than AnTuTu, Most results match what we recorded on the global version of HTC's One X.

Radio performance matched our expectations, with no issues to report. Calls sounded loud and clear in our tests, and noise cancellation worked particularly well. The built-in speaker is somewhat tinny sounding, but gets the job done. We saw download speeds of up to 6.2Mbps and upload speeds around 1.3Mbps on AT&T's 3G network



BENCHMARK	LG OPTIMUS 4X HD	GLOBAL GALAXY S III	AT&T GALAXY S III	GLOBAL HTC ONE X
QUADRANT	4,307	4,454	<b>5,084</b>	4,906
VELLAMO	1,601	1,751	<b>2,153</b>	1,617
ANTUTU	8,945	<b>11,960</b>	6,713	11,030
SUNSPIDER 0.9.1 (MS)	1,647	<b>1,460</b>	1,926	1,773
GLBENCHMARK EGYPT OFFSCREEN (FPS)	61	<b>99</b>	54	63
CF-BENCH	13,183	13,110	9,439	<b>13,233</b>
BATTERY LIFE	6:21	9:02	<b>9:05</b>	6:00

SUNSPIDER: LOWER SCORES ARE BETTER

in and around San Francisco and Los Angeles — in line with other unlocked HSPA+ devices we've used on the US' largest GSM carrier.

Battery life, however, is less stellar. In our standard rundown test, where we start with a full charge and play a video in a loop with the display brightness and volume set to half, a 75 percent or better 3G signal, WiFi and GPS enabled but disconnected, and Bluetooth disabled, the Optimus 4X HD's 2,150mAh battery lasted six hours and 21 minutes. That's on the lower end of the spectrum when compared to the current crop of high-end Android phones. Also, while this result is similar to what we observed with the

**The 4X HD feels snappy across the board.**

Tegra 3-equipped One X, HTC's flagship only packs a 1,800mAh cell. We managed to get about 14 hours of moderate use from the 4X HD — that's checking email and social networks, occasional calling and texting, taking a few pictures and light web surfing. This means most folks will be able to use LG's quad-core Optimus for an entire day on a full charge but power users will likely want to bring a charger.

A breakdown of the 4X HD exposes its 2,150mAh battery.



## CAMERA

The Optimus 4X HD camera is a mixed bag. While there's nothing wrong with the hardware — a modern 8-megapixel backside-illuminated sensor and autofocus lens paired with a single LED flash and capable of recording HD video at 1080p — the software is flawed. There's really no problem with the user interface, which is comprehensive and intuitive. Our gripe comes from an autofocus strategy which provides zero flexibility. The shooter is continually re-focusing but there's absolutely no way to prevent this. There's no dedicated two-stage camera key, no way of touching and holding the on-screen shutter button to lock focus and exposure then release it to take the shot. Even touch-to-focus is broken, focusing only briefly where you point but then returning to that continuous focus leitmotif before you even have a chance to snap the picture. Needless to say, getting the camera to focus on anything but the middle of the frame is an exercise in patience and frustration. Let's hope LG fixes this soon.

It's too bad, really, because the resulting shots are quite lovely. Colors are perhaps a little soft but white bal-

ance and exposure are pretty accurate. Low light performance is decent enough — noise only rears its ugly head in the most extreme of circumstances. The Optimus 4X HD features HDR, panorama and burst modes, the latter capturing about four to five frames per second but limited to VGA resolution. When it comes to moving pictures, the 4X HD records 1080p HD video at 30fps with continuous autofocus and mono audio. Image and sound quality are certainly fine for content encoded at 10Mbps — there's some excess sharpening and more autofocus hunting than we're comfortable with, but nothing that can't be remedied with a software update. As it currently stands, LG's quad-core Optimus falls short of the Galaxy S III and One X in the camera department, but there's still some untapped potential.

## SOFTWARE

We were pleasantly surprised with LG's UI 3.0 skin running on top of Ice Cream Sandwich when we reviewed the Optimus L7 recently and we're happy to report that the Optimus 4X HD follows suit. Billing itself as “unobtrusive and simple”, this latest UI is leaps and bounds ahead of anything we've ever sampled from LG before — both in terms of experience and performance. What you're getting then is mostly

**Getting the camera to focus on anything but the middle of the frame is an exercise in patience and frustration.**





ICS remains mostly untouched with LG's UI 3.0 skin.

stock Android 4.0.3 with a few embellishments — some actually useful, others purely cosmetic.

The quick settings menu in the notifications tray is definitely a worthy feature. By default it lets you access the QuickMemo app (used to annotate what's on the screen and save the result as a picture, Galaxy Note style), switch sound profiles, enable / disable WiFi and turn Bluetooth on / off. Of course it's fully configurable with several other settings to choose from, such as airplane mode, GPS, NFC and hotspot. Also useful are the four customizable quick-access apps on the lock screen. The launcher adds several tweaks, including some reminiscent of CyanogenMod (the 5x6 app grid option) and our favorite — the ability to create folders in the app tray by simply dragging and dropping apps. Oh, and five apps can be packed in the dock, up from the default four. On the more cosmetic end of things, you're able to select different transition effects for the home screen and one

of five clock widgets for the lock screen. There's a download tab in the launcher, in case you lose track of what you've installed.

When it comes to pre-installed apps, LG's kept clutter to a minimum. Keep in mind that our review unit is being sold unsubsidized — carrier versions will likely feature additional bundled apps. LG's apps include Application Manager (to add / remove some of the shipping apps and widgets), Cell Broadcast (to send / receive cell broadcast alerts), LG Tag+ (to program the supplied NFC tags), Memo (for note taking), RemoteCall Service (lets an LG customer support rep control your handset for diagnostics), SmartShare (for DLNA functionality), and SmartWorld (LG's app store). Yahoo!'s Finance, News and Weather apps also come pre-loaded, along with Polaris Office. Only some of these apps can be uninstalled, but all of them can be disabled.

## WRAP-UP

It's clear that with the Optimus 4X HD LG's trying to step things up a notch and break away from an embarrassing string of forgettable smartphones. From a design standpoint it's a hit — the 4X HD is refined and well-crafted, with great attention to detail. At this price point (€490 / \$590) we'd prefer fancier materials, but this also applies to Samsung's Galaxy S III. Spec-wise it fits the bill, at least on paper. The





The LG 4X HD with its competitors the S III and One X.

focus. Regardless of these limitations, the Optimus 4X HD packs a serious punch in terms of performance — it runs one of the fastest and least offensive Ice Cream Sandwich skins we've encountered to date. Ultimately, LG's flagship may not have toppled Samsung's Galaxy

display, while better than most, misses the mark when compared to the screen on HTC's One X, mostly due to excess glare. Battery life is a little underwhelming as well, despite the generous 2,150mAh cell. Finally, we'd like to see a software update to unleash the camera's full potential, especially when it comes to the auto-

S III and HTC's One X from the quad-core throne, but it's definitely made it to the royal court. **D**

*Myriam was born wearing combat boots and holding a keyboard; moments later she picked up a soldering iron. She's been stomping, typing and hacking ever since.*

## BOTTOMLINE

**LG OPTIMUS  
4X HD**  
**€490 /  
\$590**



### PROS

- Refined, well-crafted design
- Impressive performance
- Unobtrusive and simple skin

### CONS

- Display misses the mark
- Frustrating camera software
- Underwhelming battery life

### BOTTOMLINE

LG's Optimus 4X HD may not have toppled Samsung's Galaxy S III and HTC's One X from the quad-core throne, but it's definitely made it to the royal court.



DISTRO  
07.20.12

REVIEW

## NINTENDO 3DS XL



The supersized  
**Nintendo 3DS XL**  
stepped up its size,  
but does it stand up  
to the competition?  
By **Mat Smith**

**If you like your portable** gaming three-dimensional, clam-shelled and big, then Nintendo's 3DS XL fulfills those broad, unconventional requirements. It's a design refresh that more closely references both previous generations of DS hardware (and the incoming Wii U) — all while touting a substantially bigger, 3D-capable, parallax-barrier screen. Aside from a larger battery, the XL's internals rehash what we first saw over a year ago: the controls remain the same, with no addition of a (mildly) hardcore gamer-courting second analog stick. For what it's worth,





the device does arrive with a 4GB SD card in-box (up from 2GB in the original), matching the approximate doubling in physical dimensions. 18 months is a long time in gaming, especially these days, and although 3DS sales have recently rallied against Sony's latest, we reckon the 3DS XL has double the appeal of its forebear.

## HARDWARE

It's a huge relief to see Nintendo return to the cleaner, tidier lines of the DS Lite and DSi. Gone are the awkward tri-colored gloss and the angular, bizarre shape of the 3DS. Instead, it's now a simple, softly curved oblong, which looks more mature and considered. Closed, the 3DS XL's matte finish wraps around both halves — and unintentionally reminds us of Sony's Tablet P. Fortunately, the casing is far more solid than that Android tablet, and feels much slimmer. In fact, the device's thickness feels (and measures) roughly equal to the 3DS, despite the explosion in screen size, improved battery life and a 46 percent weight increase to 336g (11.85 ounces).

While gamers with smaller paws may not agree, the 3DS XL feels more at home in-hand than the 3DS — not to mention, it looks a good deal classier than what came before. Thanks to those rounded corners, the device doesn't dig into your palms like its slightly squarish predecessor. The circle pad is still supremely comfortable, just the right

We don't understand why they couldn't have embedded another analog stick into the 3DS XL — certainly, it's not for lack of space.

side of tactile, while the faithful Nintendo button medley and D-pad still do the trick.

Even more than what's changed, it's what's *still missing* that baffles us. Given that the 3DS has been furnished with a secondary analog stick through a slightly unwieldy peripheral, we don't understand why they couldn't have embedded one into the 3DS XL — certainly, it's not for lack of space. Our review sample arrived with *Resident Evil: Revelations* in the slot — a game that's not very forgiving without that second



The 3DS XL has a supremely comfortable in-hand feel.



## Even if the 3DS XL doesn't win on crispness, however, Sony's onyx wonder can't (and never will) output 3D content.

stick. It's also worth adding that while the plastic stylus on the bigger hardware remains functional enough, we miss the classy, extendable chrome pen that arrived in the original 3DS. The collar buttons are just as responsive as Nintendo's preceding handhelds. And if you weren't a fan of the cheap-looking button trio underneath the secondary screen, you'll be glad to hear that the odd bar has been replaced by three more standard-looking — and feeling — buttons. The SD slot has been repositioned to the right edge, meaning that Nintendo's sticking with standard removable storage. There's now also a horizontal cubby for the aforementioned stylus, referencing the DS Lite and DSi of gaming past.

### DISPLAYS

Bigger is better. Maybe it's our review-jaded eyes, but the larger, 4.8-inch screen (just shy of the width of the PlayStation Vita, although

slightly taller) seems to make the 3D effect less taxing, not to mention more immersive. The similarly expanded secondary screen also offers

more real estate for touch-heavy titles. The pair of screens, however, still looks a little incongruous, each boasting different sizes and dimensions. While matching the humble resolutions found on the original, we found the screens both had comparable (if average) viewing angles. The main screen may be 1.8 times larger, but it packs the same 800 x 240 resolution of last year's model — now spread a little thinner, with the more typical 'flat' 320 x 240 display also unchanged on the secondary.

Purely number-wise, it doesn't sound

A family portrait: Nintendo's DSi, 3DS and 3DS XL



impressive to anyone spoiled by Retina displays and the like. The screens on the original weren't the sharpest back then, but the jagged edges on fonts and detail is noticeably more pronounced on the bigger model. It goes without saying that the Vita's screen is a stronger performer, both visually and technically (being capacitive and all). We presume this is why Nintendo imposed filming and photography restrictions on its reviews for the 3DS XL, even though pixel math dictates that the bigger screen won't look so hot close-up. Even if the 3DS XL doesn't win on crispness, however, Sony's onyx wonder can't — and never will — output 3D content.

## SOFTWARE

So apart from size, the hardware hasn't changed that much. The same can be said for the software, but it's a good chance to see how Nintendo's embraced online content and gaming in the midst of strong smartphone contenders. Since launching last March, Nintendo's baked-in software, including eShop, Spot Pass, Mii Plaza and online functions, have had time to grow and it's particularly noticeable when it comes time to interact with other users. During the first few months of use, you weren't

going to pick up many Mii visitors — not unless you were hanging around gaming writers, tech bloggers and importers, anyway.

Now, whether we flit across the country by train or park somewhere in center city, we pick up new Miis — and accessories — in the process. Admittedly, the games that tie into this social component really aren't worth your time, but the simple process of connecting with other users — and being notified of it — still makes us smile. The uncomplicated approach makes online gaming a cinch. With access to WiFi, we could connect in-game with a single option selection and would soon be battling strangers with far greater skills than we could ever muster. The friend PIN system also allows you to connect with real-life competitors.

The augmented reality games are still baked into Nintendo's newest portable, although they haven't moved on in any way. If you've played with them on the original, you're getting the same deal again

here. The Nintendo eShop has expanded its offerings since we last opened our online wallets for the 3DS launch, with its wares separated out for ease of navigation. "In Stores" houses demos of incoming 3DS titles,

The XL sticks to removable storage and ships with a 4GB SD card.



and is presumably where the full-length games will be housed in the near future. Next is the Virtual Console, wrapping up NES, GameBoy, GameBoy Color and (gasp) Game Gear titles for anyone over 20 to replay again. It's joined by software and mini-game channels and a recommended videos collection. Unfortunately, the likes of Netflix and Hulu weren't available on our review model here in the UK and overall it's still not as good as it *could* be. While it does give a taste of how content will be sold through Nintendo in the future, we'd like those to be available now, not in another two months.

## BATTERY LIFE

Nintendo reckons you'll see around three to six and a half hours of gameplay from 3DS titles, and between five and eight for simpler DS games. In our experience, we managed an average of four hours of playtime in full-fat gamer mode, with the 3D switch and brightness cranked up to maximum, WiFi connected and around two hours of online play folded into our test. As even Nintendo forewarns on the console, how the 3DS XL is used has a huge impact on total runtime. Switch off the 3D mode, dabble with older DS titles and retro hits, and you'll see a substantial improvement in battery life. We did just that, also switching on battery saver mode and dropping bright-

ness down to the middle setting, and got closer to nine hours of playtime — it's a substantial improvement but obviously means limiting your gamer habits to some extent.

## TRANSITIONING

Nintendo's explanation for the lack of an AC adapter in both European and (some) Asian countries is that most buyers will be coming from older hardware — naturally. Thus, buried in the settings menu, is the option to transfer your content — like your digital purchases — across from original 3DS consoles and the DSi. You'll need both devices and an SD card to get it done, and it feels like an exercise in frustration compared to the effortless systems in place for other gaming challengers like Google Play, which allows you to house your purchases on multiple devices without so much hassle.

A profile view really shows off how the 3DS XL has grown.



## WRAP-UP

After playing with the 3DS XL, we returned to the original only to find it difficult and awkward to use in comparison. The new size is an improvement in so many ways, including ergonomics and playability. The bigger screen makes 3D gaming less tiring, and offers a larger sweet spot for Nintendo's all-important gaming effect, while the curved edges simply fit your hands better. Competition remains tough, however. The Vita remains clearly ahead technically, while Nintendo banks on its strong in-house software team to bring in the customers. Pitch *Resident Evil: Revelations* against *Uncharted*, or *Super Street Fighter IV 3D* against *Marvel Vs. Capcom 3*, and it's clear to see on those big ole' portable screens which has the most potent hardware. But if you've been waiting out for a 3DS Lite before taking the plunge into 3D waters, then we can't help but recommend Ninten-



do's latest. We just hope the company can give its online content offering a shot in the arm soon, as it's really starting to age the hardware. **D**

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*Mat is a contributing editor who lives in the UK. He's a Liverpool supporter who enjoys obscure Japanese game shows.*

## BOTTOMLINE

### NINTENDO 3DS XL £180 / \$199



#### PROS

- Bigger screen improves the 3D effect significantly
- Improved battery life under some conditions
- More comfortable to hold and use

#### CONS

- Digital content still lacking
- No secondary analog stick
- Not the most powerful of handheld hardware

#### BOTTOMLINE

If you've been holding off from buying a 3DS, the improvements to the screens and battery are enough to warrant a purchase, but some issues still remain.





The entry to the former paper factory is, unsurprisingly, a little messy. There's something to see in every corner of Artisan's Asylum.



# HANDMADE HAVEN

Two years ago, GUI CAVALCANTI AND JENN MARTINEZ set up shop in a shuttered office supply warehouse, planting the seed of an endlessly expanding hackerspace, and fostering a culture of collaborative creativity in Somerville, Mass.

BY BRIAN HEATER



**In 2009**, the Ames Safety Envelope Co. closed up shop and moved to Wisconsin. The 90-year-old stationary and office supply manufacturer, once a top-three employer in Somerville, Mass., uprooted its operation for the upper-Midwest, leaving a massive 300,000-square-foot warehouse in its wake. That part of the story is a familiar

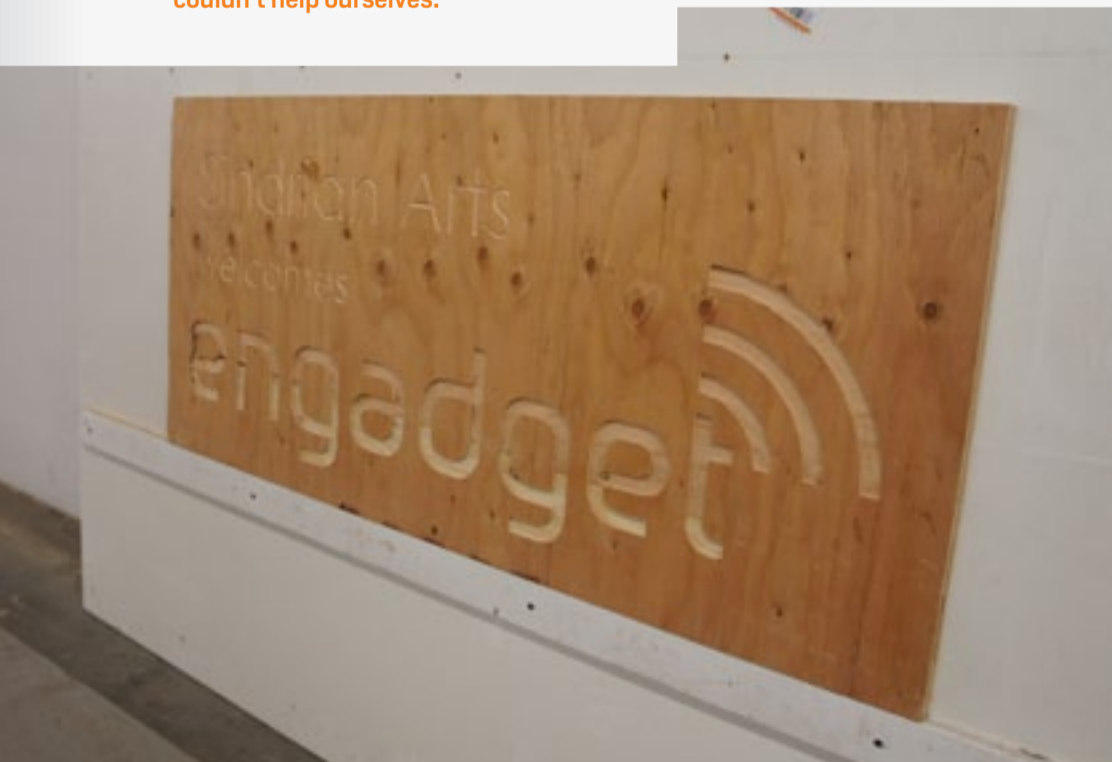
one, of course — there's no shortage of tales of shuttered manufacturing plants up and down the East Coast of the United States — in fact, Ames' exit was a decade or so late to the trend, by the area's standards. Many facilities have long since vanished from the landscape.

Today, a step inside the fortress-like brick structure at 10 Tyler St. reveals a vastly different space than the cold and echo-filled one Ames left behind three years prior. Visitors are greeted at the door by the back of a large dragon's head, thin red vinyl stretched across a metal frame, strung from the warehouse rafters. A plush hippo toy sits in its mouth, arm frozen in perpetual greeting. The garage-

like space didn't stay empty for long, a fact that may owe a good deal to Somerville's status as the most densely populated area in New England — beating out nearby Boston — surrounded by some of the nation's most prestigious universities. Close by are institutions with names like Harvard and MIT and Tufts.

It's the heart of the state with the nation's highest concentration of colleges. It's also the home to the US' densest population of

Judah Sher's Kikori CNC gantry router wasn't originally a scheduled visit, but with a sign like this out in the hall, we couldn't help ourselves.





For extra geek points, Sher incorporated a Wiimote into his wood router setup.



artists outside of Manhattan. It's a strange and wonderful combination, with Artisan's Asylum, a non-profit craft / hackerspace, serving as a sort of makeshift capital for this perfect storm of creativity and technology since it first opened shop back in May 2010.

"We started in a 1,000-square-foot space," explains Artisan's bespectacled, curly-haired co-founder, Gui Cavalcanti. "Me and my co-founder [Jenn Martinez] were working out of a little closet. We just wanted a dedicated project space with tools. I build robots, so there's metal-working, there's welding, there's woodworking and there's electronics and they all kind of tie together. When we told people that we were having a party and were going to be building stuff, we expected like 20 people to show up. One hundred people showed up to the opening party, and we were immediately out of space. We signed the lease on the 9,000-square-foot space in the next month and basically spent a year packing that space."





# 5 HACKER SPACES TO WATCH

Hackerspaces all over the world are becoming thriving communities of industrious crafters, hackers, tech-fiends, inventors and entrepreneurs. Offering mentoring and education to the uninitiated and collaboration to cross pollinate ideas, these are the new dream factories.

## NOISEBRIDGE SAN FRANCISCO, CA



Set up as a non-profit educational corporation, this 5,600-square-foot location provides an infrastructure supporting a variety of technical creative projects and spreads the ideal of “teach, learn, share.”

Artisan’s Asylum now occupies 31,000 of the 300,000 square feet Ames left behind, a massive floor plan that’s scattered throughout with Razor scooters, skateboards, bikes and other assorted wheeled transport — necessary tools for navigating from workspace to workspace. Those 30,000-odd square feet are still bursting at the seams, with a 95-person wait list, which, at the current turnover rate for cubicles (hovering at around zero, over the past two years), would put the next available spot for a cubicle at around 22 years, according to Cavalcanti’s math. Thankfully, the one-time stationary supply warehouse still has plenty of space to give, and in the next few months, Artisan’s Asylum is set to expand its already impressive reach yet again by another 9,000 square feet, putting things at an even 40,000.

In the meantime, the brick building houses 119 cubicles, a collection of 200-square-foot offices that hosts a diverse and fascinating array of creative curiosities, ranging from a welder of custom bike frames to kegs full of homemade spiced mead to latex molds of *Portal* boots. During our tour of the space, it’s impossible to not assume the attention span of a hummingbird, distracted by hacked electric motorcycles, giant steel globes, homemade pterodactyls and hand-tied canoes. “We’re not trying to just make it just tech or just make it art,” explains Cavalcanti. “It’s that these people actually



There’s a small brewery on-site, but spiced mead is the drink of choice for Artisan’s Asylum residents. [Drinking mead while operating heavy machinery is not recommended.]



## NYC RESISTOR

### BROOKLYN, NY



Offering a microcontroller study group and

lots of “lazzoring” fun, it’s clear that these hackers are into their machines. It’s fitting that Makerbot’s creator is also one of the founding members here.

WobbleWorks co-founders Max Bogue and Peter Dilworth show off their Flap-itz — sure to be a massive hit with the kids when they arrive this Halloween.



## HACKER DOJO

### MOUNTAIN VIEW, CA



This community driven space is a self-pro-

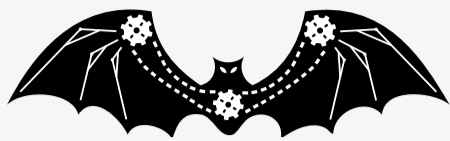
claimed “do-ocracy” and is open to all with a will to learn, even if you’re not a programmer. It’s been home to the inception of Pinterest and is currently seeking to increase its workspace through a Kickstarter campaign.

like being around each other and getting inspired by one another.” He points out the newspaper boxes that dot the floor, the fruits of a partnership with local free weekly *Digboston*, who asked the hackerspace to give new life to its rundown corner distribution posts. Artisan’s Asylum returned with chicken coops, race cars and slot machines. The wonderfully-named Rawr: The Awkward Godzilla box ultimately proved too big a temptation for one Somervillian — the piece went missing back in May. Joseph Curtatone, the town’s honorable mayor eventually intervened on Twitter with, “Surely someone can find some other piece of ironic furniture.”

Gimpy, a 5-foot-tall, 600-pound hydraulic leg lives off to the side of a congregation of ‘70s-style couches and chairs, where tenants hold regular meetings and tutorials, like the one for small businesses that began toward the tail end of our trip. To the other side of the congregation, in front of the vintage Evel Knievel pinball machine, sits a 135-horsepower propane engine. The leg, it turns out, is only half-scale — it, along with the engine, serve as the beginnings of Stompy, a robot started back in April as part of an intensive course co-taught by Cavalcanti. By the end of it all, Stompy is set to become one of the world’s largest six-legged robots, a spectacle sure to dwarf even the most impressive Burning Man-style projects that use Artisan’s

**KICKSTART  
HACKER DOJO**





## ATX HACKERSPACE

AUSTIN, TX

Its motto, “Be Excellent, Make a Difference,” says a lot about its ideals. ATX is dedicated to education for all things technical, scientific and artistic. The group’s pursuits including everything from soldering classes to HAM radio study groups. Like Artisan’s Asylum, ATX Hackerspace is on the rise and moving into a larger facility soon.

## SECTOR67

MADISON, WI

AKA the Center for Prototyping, Technology and Advance Manufacturing, this 4,100-square-foot space is a combination tech shop / “maker-space,” offering mentoring to help kids make their ideas a reality. The big kids have fun too — the team is currently the defending champion in the Power Racing Series.

Asylum as home base.

Then there’s Peter Dilworth and Max Bogue from Wobbleworks, the first official stop on our tour. Decked out in a pair of dog and rabbit ears, the duo cart out an impressive robotic spectacle of their own — albeit one slightly less awe-inspiring in scale. Still, when they cart out the baby protoceratops, heads pop up from surrounding cubes, a crowd soon forming in the aisle around the small, messy workspace that serves as the company’s world headquarters. In a sense, Dilworth and Bogue are not all that unlike most of the space’s tenants, creative individuals with nine-to-five gigs that fuel their passion projects.

Where the duo break from the pack, however, is in the description of their chosen professions, founding a toy company in order to help fund the more mechanically complex dinos. The first project on the slate are the Flap-itz both men are modeling, movable animal ears, controlled by a pair of buttons, that are almost certain to fly off store shelves when they hit retailers this Halloween season for \$10 a pop. Slightly more complex is a small bipedal dinosaur that shuffles alive with the flick of a switch. “We have a couple of smaller robot dinosaurs we’ve tried to toy-ize,” Bogue begins, “like versions that we’re hoping will come out in the next couple years as products for consumers,

From Top: WobbleWork’s protoceratops robot; the massive engine that will help power Project Hexapod; the Rascal Micro looking to take on the ubiquitous Arduino microcontroller.





The 3D printer: one of the most heavily used machines at Artisan's Asylum.



so hopefully we'll be seeing a lot of little robot dinosaurs running around on the market pretty soon."

Dilworth flips the three switches on the back of the protoceratops, bringing it to life with a clanking metal walk, and drawing the aisle traffic to a standstill. There's a genuine sense of excitement amongst the creative cube dwellers. That, after all, is why they're here — these are individuals drawn toward collaboration, fueled on by the innovation of others. "That's what the low walls are for," Cavalcanti explains with a smile. "Everybody has these four-foot walls. You can look into everyone else's space. The point is that you're trying to actually collaborate and you're trying to work with other people as a rule."

Brandon Stafford's cube, the next stop on the tour, has become a particularly popular hub for tenants. It's the home of the Rascal Micro, Stafford's own alternative to the Arduino that's "maybe 25 times faster [and] has 1,000 times more storage" than the popular Italian microcontroller, according to his estimates. It's got enough built-in firepower to operate as a mini-web server. Stafford tells us about Angerlights.com, one of the goofier ap-





From Top: A balisong screwdriver made on the Gantry Router; an industrial CNC router; the Arduino inside of the Solair Altius drone; a bit of Artisan's Asylum's metalworking shop; one of many projects in the works.



plications of his technology, based in his friend's house in Atlanta, Ga. The project is comprised of four red lights that can be controlled from afar by web users, in hopes of helping them let off some steam. The Rascal's creator has used the board for decidedly more practical applications. "In my house, I've got a thermostat running off of this," he explains. "I've also got a sprinkler in the garden. There are products that do that, but they never do it exactly like I want. And they're expensive." Stafford's board, meanwhile, is likely to run around \$100 to \$150 in its next iteration, and will no doubt find its way into a number of projects constructed within these walls.

The Solair Altius springs to mind. It's a homebrewed, unmanned aerial drone with an 18-foot wingspan that is so massive, its creators were forced to design a sizable structure and string the plane from the rafters with a set of pulleys in order to squeeze into their admittedly humble cube. For the time being, the UAV sports an Arduino Mega inside its carbon fiber body. It's a big, hulking thing, and while the term "drone" certainly dredges up some ominous images from places like Afghanistan, co-creator Chris Courtin insists that the machines get "a bad rap," adding that his own solar-powered vehicle has far more peaceful implications.

"It's an incredible technology" he adds, "and we actually think there's a real potential to be able to bring drones to people in organizations that would like to be able to do some surveillance and who could really benefit from being able to get data from the air, but who are put off by the multimillion-dollar price tag of the Predator or all the controlled military hardware." Altius' potential peacenik applications include weather surveys, power line monitoring and scientific research, allowing relatively inexperienced pilots to control the plane remotely from the comfort of a PC. The hollow space in the vehicle's body between circuit boards, meanwhile, could potentially serve as a repository for things like medicine, which can be delivered to difficult-to-access regions.

But for every project focused on saving the world, there



are a dozen constructed with little more in mind than sheer amusement — a noble pursuit in and of itself. And walking along the back wall of the space, it's impossible to breeze past SCUL's cube without pause, rows and rows of modded bikes hang from racks, one with a plastic Santa Claus lawn ornament and another with a Millennium Falcon grafted to the handle bars. Cavalcanti encourages us to take a few for a spin on one of the Burning Man-friendly bike crew's vehicles, pulling down a faded red bike with a giant hinge in the middle of its frame, which causes the whole thing to wobble with abandon. Taking off on the thing is a bit like learning to ride all over again — and that's kind of the idea. The crew awards a point system to riders, allowing them to graduate from their starting position as “Baby Maggots” using the following rather unwieldy equation:

$$\begin{aligned}
 E &= (Ly \times Or \times 2) \\
 &+ [(10 - Hr) \times Te] \\
 &+ [(10 - Tr) \times Gw] \\
 &+ B
 \end{aligned}$$

The “E” stands for “experience.” The other letters SCUL will happily explain to you, should you join them on one of their epic three-hour bike rides Saturday nights in the greater Boston area. The team rides together, led by the “mothership,” a rather massive bike that sports a giant disco ball on a pole, with a series of lights reflecting off it





The warning sign that greets visitors at the entry to the Asylum's wood and metalworking shop. Curiously, the fly featured on the sign wears a shirt but no safety glasses.

for full effect. Also on-board is a tiny pirate radio station, beaming funk music played on an iPod to the rest of the bikes. It's a strange and wonderful thing to behold, like a bicycling marathon cooked up on an alien world. But here in Artisan's Asylum, where there's something for everyone, it feels right at home.

Walk down that back row a bit (or grab a scooter, if you can find one); beyond the "Safety Glasses Required Past This Point" sign featur-

ing a drawing of a human fly in a button up shirt. There you'll find massive areas for wood and metal work and tools for soldering — the cornerstones of its founders' original vision. There are giant industrial tools throughout and trashcans filled with wood shavings. Cavalcanti adds that the space is currently in the process of creating a centralized vacuum system to suck up those troublesome wood shavings.

Wandering through this space, it's easy to see the industrial spirit still alive in Ames' former home. A lot has certainly changed in three years, mass production having been traded in for a million handmade projects. The space's new occupants can't fill in the massive employment void left when Ames skipped town for snowier pastures, sure, but they fill in another vital need: a place where after-work flights of fancy are transformed into reality with blood and sweat and countless all-nighters. And the result is endlessly inspiring, fascinating and an awfully fun way to spend an afternoon. **D**

---

*Brian's work has appeared in Spin, The Onion, Entertainment Weekly, The New York Press, PCMag, Laptop, and various other publications.*



# ESC

DISTRO  
07.20.12

VISUALIZED

## WALKING DEAD ZOMBIE SURVIVAL MACHINE



This tricked-out Hyundai Elantra Coupe, otherwise known as the Zombie Survival Machine, debuted at Comic-Con 2012 in San Diego, Calif. It was designed by *The Walking Dead's* writer and creator, Robert Kirkman, and features a custom "zombie plow," armored window coverings and spiked rally tires.





# MIKE ISAAC



**ALLTHINGSD's** senior editor takes a few minutes off from covering social media giants to discuss the genius behind Dippin' Dots.

**What gadget do you depend on most?**

Like everyone else, it's the Swiss-Army knife of the modern age: my smartphone. Prefer the iPhone or HTC's Nexus One because, yes, I am old school.

**Which do you look back upon most fondly?**

Toss up between the Virtual Boy (a cult classic) or the completely overlooked TurboGrafx 16. I

played the hell out of some *Bomb-erman* on that thing.

**Which company does the most to push the industry?**

Hmm. Apple leads mobile, hands down. Everyone else is racing to catch up.

Software? I find the Apple / Google mobile OS race fun to watch. Pressures Microsoft to get creative — which it has



# What technological advancement do you most admire?

“Whatever magnificent bastard thought up Dippin’ Dots.”

— and makes Goog and Apple outdo one another with each release.

## What is your operating system of choice?

Been using a Mac for the past eight years, though grew up on a PC. Smartphone-wise, started on a BlackBerry, moved to Android, ended up on iOS. For all its quirks, I enjoyed Android immensely, though iOS is the most reliable.

## What are your favorite gadget names?

SlapChop! Genius. And the convicted felon spokesman is particularly endearing.

## What are your least favorite?

Pretty much every Motorola smartphone and tablet brand coming out now. Xyboard? Xoom? Sounds like the market-



ing department is composed of a bunch of 13-year-old boys.

## Which app do you depend on most?

Calendar and Twitter. The latter being my source for breaking news while in transit, and the former being the best thing to keep my chaotic life in order.

## What traits do you most deplore in a smartphone?

Crashiness (ahem, Android). Bloatware (ahem, carriers). Gigantism (ahem, Samsung Note).

## Which do you most admire?

Those that can stand up to ample abuse. I’m clumsy as all get-out.

## What is your idea of the perfect device?

Slim, simple and made of steel. Wait, I may be thinking of a sword.





What is your earliest gadget memory?

**What is your earliest gadget memory?**  
Do Lincoln Logs count? I loved those things.

**What technological advancement do you most admire?**  
Whatever magnificent bastard thought up Dippin' Dots.

**Which do you most despise?**  
I have a love / hate relationship with being always "on." I mostly blame the smartphone for this.

**What fault are you most tolerant of in a gadget?**  
Lack of onboard storage, considering how fast we're moving to the cloud these days.

**Which are you most intolerant of?**  
BATTERY LIFE. UGH.

**When has your smartphone been of the most help?**  
Tackling massive technology events like CES without a smartphone is almost an exercise in fu-


tility. When I was at *WIRED*, our team used the GroupMe app to coordinate coverage, photography and meetups well into the night.

**What device do you covet most?**  
Probably some fancy, tricked-out gaming PC rig, any of which I haven't owned in well over a decade. No time for video games anymore, sadly. Even *Diablo 3*.

**If you could change one thing about your phone what would it be?**  
Went with the white iPhone, immediately regretted the color choice. I feel like a hipster.

**What does being connected mean to you?**  
A non-stop torrent of mostly irrelevant e-mails.

**When are you least likely to reply to an email?**  
When it's obviously a form letter or boilerplate. Take the time to personalize. And be concise.

**When did you last disconnect?**  
Have to check my calendar for that one. Now where's my smartphone ... ? 



*IN REAL LIFE* is an ongoing feature where we talk about the gadgets, apps and toys we're using in real life.

# FUJIFILM X-PRO1

**It's one thing** to go out shooting with the aim of testing a camera, when you're deliberately poking at its limits. It's another when you're simply trying to use it for day-to-day photography. Nowhere is that contrast more obvious than with Fujifilm's X-Pro1: it's a camera meant to do a few things (portraits, close-ups) very well, but has a number of flaws that become clear even before you press the shutter.

I've had some time to shoot more leisurely with the X-Pro1 over the past few weeks, and the camera's limitations foster a definite love/hate relationship. Image quality, as you'd hope, is top-notch: it can produce beautiful street shots and macros when called upon. I've found that the 35mm f/1.4 lens is often the best for the job, letting me shoot reasonably close without having to go wide angle. It's surprisingly good in dim settings, and

I can crank up the sensitivity higher than on some other mirrorless cameras. Autofocus can sometimes be a problem, but it's fine with reasonable light. And I'll

admit that the faux-retro design and improved controls make it surprisingly pleasing to shoot with; that quick menu and quiet shutter particularly stand out.

It's the lack of lens choice that drives me mad. That wasn't as much of an issue with the X100, but it also didn't cost \$1,700 for the body only — and when there's still no option for a zoom lens, you really feel that cost difference. There have been a few moments shooting with the X-Pro1 when I've had no choice but to hold off on a shot because I couldn't move any closer. The situation will change in the next half-year as Fujifilm brings in its first XF-mount zoom lens, but I'd still recommend buying a Sony NEX-5N (as I did!) if you want a current-generation mirrorless camera with a large sensor. Fujifilm's sensor and lenses eke out some advantages against Sony's NEX line if you compare them closely in similar situations. They're just not \$1,000-plus better for casual photographers who want a wider pick of standard zooms and telephotos. Besides, at that price why not look into a mid-tier DSLR? — *Jon Fingas*



Garmin  
Edge 200



Otterbox's  
Universal  
Defender  
Case,  
Revisited



# GARMIN EDGE 200

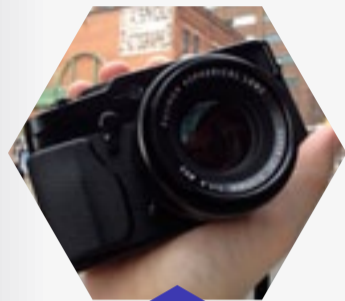
I'd been in the market for a bike computer for sometime, but nothing out there ever really spoke to me. My options seemed to fall into two categories: cheap pieces of junk that seemed no more reliable than randomly guessing the distance I covered, and complicated, over-priced systems worthy of the Tour de France.

Last August, though, I got my hands on Garmin's budget-minded Edge 200, and it hasn't left my handlebars since. Sure, at \$150 this GPS cyclo-computer isn't exactly cheap, but it's a cool hundred bucks less than similar options. The feature set is basic, but it does everything I need and it's dead simple to operate. The screen displays your current speed, distance covered, the amount of time you've been riding and your average speed — pretty much all the most important data

for the casual cyclist.

And, of course, you can plug the unit into your computer and download maps of your ride. My only complaint about the maps is that the Edge spits out .fit files, which can't be imported by anything other than Garmin's software. Which means when I want to upload my rides to RunKeeper, I have to import them to Garmin Connect, then export them as .tcx files first. Obviously, I could just use the app on my phone, but if I'm going for a particularly long ride, the Edge's 13-hour battery life wins out over my quick-dying Galaxy Nexus.

With a couple of hundred miles (and a few unfortunate spills) under its belt, the Edge 200 is still going strong. In fact, I'm not entirely sure I could break the rubber and plastic unit even if I tried, which is good considering my penchant for dropping things and leaving them out in the rain. The only feature I do miss is the ability to connect to ANT+ accessories like my Polar heart rate monitor or a cadence sensor. But, more often than not, biking is simply a mode of transportation for me, and distance and speed are more than enough to satisfy my inner number nerd. — Terrence O'Brien



Fujifilm  
X-Pro1



Otterbox's  
Universal  
Defender  
Case,  
Revisited



# OTTERBOX UNIVERSAL DEFENDER CASE (REVISITED)



Fujifilm  
X-Pro1



Garmin  
Edge 200

When you buy a new phone, the last thing you want to do is swaddle that shiny newness in some giant case. But if it comes down to a choice between a shattered handset or a little extra padding, the choice seems simple. Sure, you can make it a point never to drop your phone, but some of us aren't quite that coordinated (I wasn't drunk, I swear) — a deadly trait when combined with the iPhone 4 / 4S' fragile design. So I opted for Otterbox's Defender, a beast of a case that was the source of mockery on more than one occasion. But, it did the trick, even in some of the most outlandish settings.

But while the Defender is a monster when it comes to protecting from shock, moisture and dirt, there's a fatal flaw in the armor: a silicone corner that tears after you open the headphone flap enough times. And as a heavy listener of music / podcasts, I opened that flap a lot, eventually destroying that side of the case and rendering the rubber bumper useless. Without the silicone sleeve, Otterbox's Universal Defender case is just a cheap, plastic shell with a lot of prongs that tend to get caught on everything in your pocket.

I've since moved on to an iFrogz Cocoon case. Wish me luck.  
— *Brian Heater*



# An Office Outside the Metro



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ESC

SWITCHED  
ON

BY ROSS RUBIN

**The two worlds** of Windows 8 — one: a traditional desktop UI and the other: the touch-optimized Metro UI — can, at first, seem so different that they contrast like the multiple personalities of Batman's enemy Two-Face. Yet, despite the different appearances, the forthcoming version of Microsoft's venerable operating system is not about absolutes, but optimizations.

Like the yin-yang symbol, each half of the circle embraces some of its opposite. The company has breathlessly reassured the installed base of this with respect to Metro-style apps, in which one can navigate by keyboard and mouse, but its recent detailing of the new version of Office highlights the fact that the overlap goes both ways; desktop apps can at least partially embrace touch input even if they are not Metro-style apps.

Throughout Office's history, it's been the most important set of Windows applications for Microsoft. It helped push programs like Microsoft Word and Excel past once-seemingly invincible competitors such as WordPerfect and Lotus 1-2-3. Today, Office is the only full-featured

traditional desktop application that Microsoft is keeping around for Windows RT. And so, Microsoft's decision to keep the next version of Office on the desktop side of Windows says much about how it views the state of desktop versus Metro-style apps.

We should, of course, take care in what we wish for. Microsoft undoubtedly evaluated creating a Metro-style version of Office for Windows 8 just as it has created a Metro-style version of Internet Explorer. The company surely had good reasons for maintaining desktop-style devotion in Windows 8 for this revision. There is, of course, a Metro version of Office, at least in name, and it ships with every Windows Phone. Scaling nominal, on-the-go productivity from the small screen to the big one is a daunting task.

On the other hand, Microsoft's approach with Office begs a question. If touch-optimizing a desktop app is good enough for Office, why isn't it good enough for other Windows 8 apps? Why create not only such a radical change, but also the discord that results from supporting two different user interface modes, even for a prolonged transition?



## “If touch-optimizing a desktop app is good enough for Office, why isn't it good enough for other Windows 8 apps?”

There are at least three possible answers.


First, unlike the transition from character-line to graphical user interfaces, touch user interfaces do not provide a better environment for productivity applications. While many could debate that point at length, it's clear that Microsoft's competitors aren't letting it stand in their way. Much like Microsoft Word had a model for GUI-based word processing in MacWrite, touch-optimized office suites have been developed by or snapped up by Microsoft's competitors, including Apple (iWork), Google (QuickOffice) and RIM (Docs To Go).

Second, the touch UI is changing the kind of apps we use PCs and tablets for. It's less about spreadsheets and word processing and more about the applications that dominate the iPad's app store — casual games, recipe collections, social networking clients, etc. Most would agree that we are doing more of these things on PCs as well as on tablets and smartphones. The other tasks are not going away, though, as per the point about competitive tablet office suites. If Metro isn't for office suites, or at least not Microsoft's, what is the real value of this desktop-class, non-watered-down oper-

ating system that Microsoft sees as providing an advantage in a Metro context versus iOS and Android beyond driver support?

Third, touch-optimizing a desktop app ultimately is not good enough. Microsoft has not publicly said that it believes

Windows' desktop mode to be a legacy interface. Further clues will become apparent with the next version of Windows, which may continue to largely ignore the desktop environment, enhance it further, or even constrain it further by taking steps such as guiding users back to the Metro Start screen instead of the old Start menu. However, via moves as varied as killing off the Zune and Windows Live brands to the demise of Windows Home Server to the launch of the Surface tablet, it seems clear that this present Microsoft is less concerned about preserving legacy products, particularly when they lack momentum. (Note to MSN TV service: keep hiding.)

They say the proof of a company's belief in its own products lies in its willingness to “eat its own dog food.” Over time, though, the company's belief in the strength of the Metro UI will be tested as it continues to reserve the desktop for certain app exceptions (much like some users continue to use Windows' CLI today for certain utilities). If Metro is to define Windows' user interface, it must be robust enough to service mainstream Windows apps, and Office is the archetype. 





The week that was,  
in 140 characters or less.

# OFFICE, APPLE AND YAHOO'S NEW HIRE

**@danawollman**

Marissa Mayer gets named CEO of Yahoo and there are still idiots who think her only talent is being a hot blonde.

**@alexismadriral**

In case someone hasn't said it: Yahoo could not have made a better pick. Mayer, on the other hand...

**@ohnorosco**

If Apple is forced to advertise that Samsung didn't copy the iPad, I guarantee any ad'll include that "not cool" line

**@ryan**

Snap! A new version of Microsoft Offi—ZZZZ  
ZZZZZZZZZZZZZZZZZZ

**@JohnPaczowski**

Well at least yahoo now has a CEO with a real computer science degree.

THE STRIP

BY SEAN PRYOR



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TIME  
MACHINES

WHAT IS THIS? TAP  TO FIND OUT



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