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092812 #59

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DBC CITY BIKE IS PUTTING A NEW SPIN ON AN OLD DESIGN

INSIDE:

THE XPERIA T LEADS SONY'S NEW ANDROID FLEET

SONY'S FIRST XPERIA TABLET MAKES A BOLD MOVE

AND VIZIO GETS IN THE DESKTOP GAME

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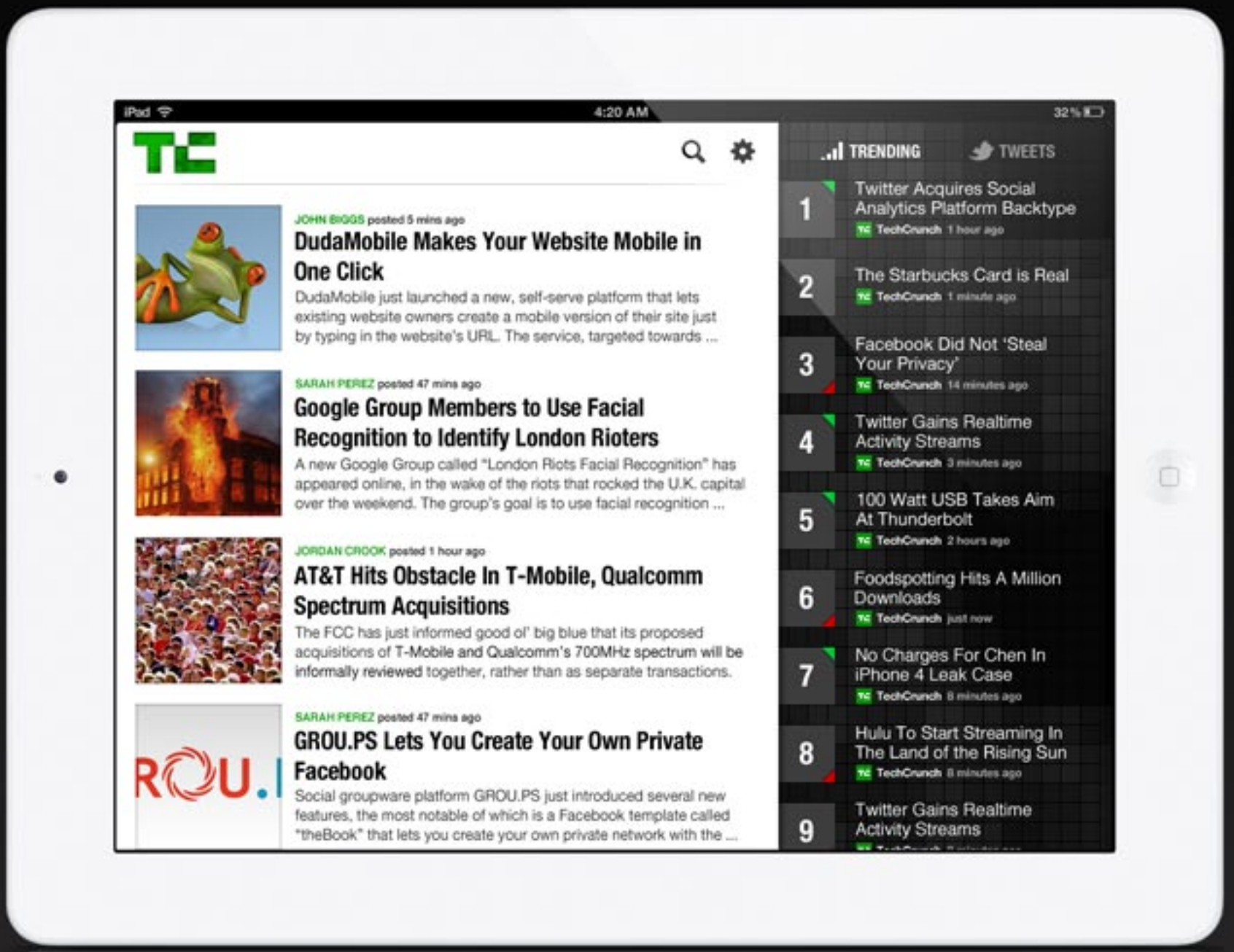

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ISSUE 59

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By Tim Stevens

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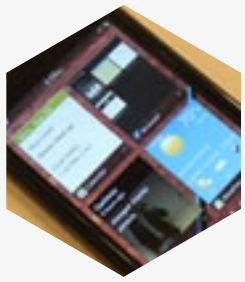
EYES ON
Contour+2



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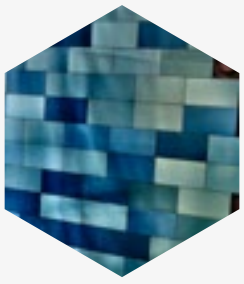

VISUALIZED
Dark Energy Camera

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REHASHED
Crazy Trains and Driverless Cars

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TIME MACHINES
Historical Press

On the Cover:
Photograph by Ken Richardson

BONJOUR

EDITOR'S LETTER

DISTRO
09.28.12

Greetings from Paris. This week has had me watching the world of tech announcements from a very European perspective as I've traveled across the pond to bring you some coverage from the Paris Auto Show — or the Mondial de l'Automobile as they call it 'round these parts. Look for some of the more photogenic highlights from the show in next week's issue. Needless to say, there are some luscious examples of sheet metal at the show this year. Plenty of high-tech ones, too.

Thankfully we also saw some luscious examples of consumer electronics this week, with Barnes & Noble saying that this is the time to release its new tablets to the world — a few new Nooks following hot on the heels of Amazon's Kindle Fire HD. The Nook HD is a 7-inch tablet that is very much indeed following in the footsteps of Amazon with a faster processor, 1,440 x 900 display and either 8 or 16GB of storage for $199 or $229.

The Nook HD+, however, could be seen as a response to the big-sized Kindle Fire that never actually materialized. It stands alone as a budget 9-incher with a greater-than-1080p (1,920 x 1,280 to be exact) display and either 16 or 32GB of storage for $269 or $299. (The latter is by far the better deal there.) It also has a funky little loop in one corner from which one could theoretically hang the thing from a carabiner and clip it on a bag or belt — though I don't think anybody would ever walk around like that.

Both start shipping in October and both could be interesting choices, but with Amazon's Fire HD already standing as a very compelling option that's available *today* these two are going to have to do something significantly better to appeal to anyone outside of the B&N ecosystem. I'm looking forward to seeing how they stack up when we're able to apply the full review treatment soon.

It's safe to say that neither is likely to match the sales success of the iPhone 5, which clocked in at somewhere north of 5 million units sold over its first weekend of availability. That's up roughly 25 percent from sales of the 4S last year, but still some had higher expectations. When the phone was announced, many tech pundits took the chance to express their disappointment. I suppose it was inevitable that the analysts would want their chance, too.

Speaking of Apple's latest, a few lucky members from our team were granted the opportunity to head to Nokia's HQ and

EDITOR'S LETTER

pit the, as of yet, unreleased Lumia 920 against that and a few other smartphone luminaries like the HTC One X and the Samsung Galaxy S III in a battle of low-light image quality and image stabilization. It should come as no surprise that the latter two didn't compare to Nokia's floating camera assembly, which clearly took the cleanest stills and smoothest video. Out of the four, the iPhone 5 came in a clear second, but Nokia does indeed look to be raising the imaging bar here.

We would have loved to include a RIM device in that shootout, but you see, that company hasn't made a new one in quite a long time. It did, however, take this week to show us some more features of BB10 running on new prototype hardware called the Dev Alpha B handset. Never mind your concern that we're only a few months away from supposed release but they're still showing off alpha hardware; the OS itself looked a bit more complete than the version we saw over the summer.

As before, it's all very clean and very, very productivity-focused, which I like, but I'm still not seeing anything here that would woo people away from iOS and Android. Will it be enough to keep the BlackBerry faithful happy for another year or so? Absolutely. Enough to regain RIM's former market power? That remains to be seen.

Elon Musk unveiled his Supercharger stations for present and future Tesla EVs. It's a hulking monolith of a solar station, not unlike something you'd expect in *Command & Conquer*, which sucks in power from the sky and pumps it out at 90kW, fast enough to give about three hours of driving time to a Model S in about 30 minutes. Not bad — but it's a shame the company opted to make them incompatible with existing Level 3-capable vehicles, like the Nissan Leaf and Mitsubishi i.

And, Samsung has finally put the developer edition of the Verizon Galaxy S III up for sale. It's available exclusively off-contract, of course, priced at $600 for the 16GB model and $650 for 32GB. This comes more than *two months* after they piqued my interest in the thing back in July, such a long time that I'm now saving my pennies for something sweeter.

In this week's Distro, Terrence O'Brien takes a look at how DBC City Bike Design is re-imagining what a bicycle can and should be. We have a pair of consonant-designated Sony reviews — the Xperia T and Xperia Tablet S — and Dana Wollman sees how Vizio's intriguingly designed Vizio All-in-One desktop stands up to the competition. This Modem World talks about the insanity of modern passwords, Ross Rubin explores capitalistic influences in the App Store and JJ Aguhob, co-founder of Viddy, takes a daring step into the world of textual communication by completing our Q&A. Amusez-vous bien.

TIM STEVENS
EDITOR-IN-CHIEF,
ENGADGET

RUBBER BRANDS, APPLE'S INCREMENTAL INNOVATION AND MADS' WORLD

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09.28.12

INBOX

IPHONE 5: INNOVATIVE OR INCREMENTAL?,
ISSUE 58,
SEPTEMBER 21ST, 2012

"Bigger screen? Cool, I still can't watch pixel-for-pixel HD movies. Thinner? So is everyone else's. Lighter? Now it just feels like the toy it always has been. Faster? Because iPhones are generally used for so many processor-intensive, non-consumption tasks, right? Better camera? Like the 920? Ha. A nice device, for sure. But innovative? Bar-setting? This is not."

— DAVID SCANLAN

"I think the iPhone 5 still innovates in the way that Apple does. They don't go around inventing an entire new thing, contrary to what many people think. They take successful features on the market and build on them immensely, giving them each new features. Flyover, Panorama shooting, and Passbook-like features have all been around, but Apple's made them more refined than ever. So even though the phone itself isn't "inventive" it is still innovative."

— THE NEW MATTHEW

"Obviously copies of Distro sent to Android tablets should say it was incremental, and copies sent to iPads should say it was innovative. Confirm everyone's suspicions. Or, swap those versions and watch the upset comments fly."

—RF

"It's an improvement, but not innovation. (With all due respect) How on earth can it be called innovation?"

— KUMARA3

"I am a believer in great service, and I do my very best to provide it in a professional capacity, and expect it in my capacity as a consumer. When I don't get it, I go elsewhere (when possible), even if it means paying a premium. I want more of us to vote with our wallets in this regard — so let's put aside our fanboy differences and unite as geeks to demand what we are owed — treatment as humans, not as "order numbers".

—THE MONARCH
THE EXTREMES OF TECHNOLOGY CUSTOMER SERVICE
ISSUE 58, SEPTEMBER 28TH, 2012

"After a bit of pondering, he confesses that simply describing a portfolio of successes and failures wouldn't do much good." Why did this article then go on to list successes and failures at other companies, and label them as either cautionary tales or positive lessons learned? Why is it, then, not okay to talk about an individual's successes / failures as productive?"

—RICKY RAINY
DREAMS, PASSION AND A CURIOSITY FOR WHAT'S NEXT
ISSUE 57, SEPTEMBER 14TH, 2012

"Let us choose our own wireless carriers for our phones (signal type notwithstanding), too! Give the consumer power, and you will ultimately be rewarded for it. Hold onto that power for yourself, and you draw their ire."

—HALIPHAX
THIS IS THE MODEM WORLD: CAN I PICK MY OWN SET-TOP BOX, PLEASE?
ISSUE 57, SEPTEMBER 14TH, 2012

"I don't blame RI in trying to invest in tech companies who in turn invested in creating jobs in the state, what they did wrong was putting all their eggs in one basket, particularly when that basket (an MMO game) has a particularly problematic past. They should have invested in start-ups with small dollars going to each company, growing local companies."

—RYANSTAKE
FALLEN KINGDOM: THE COLLAPSE OF 38 STUDIOS
ISSUE 55, AUGUST 31ST, 2012

"I thought this was going to be about the apple rubber band bounce back effect patent."

— DAVIDHIANNONE
SWITCHED ON: RUBBER BRANDS
ISSUE 57, SEPTEMBER 14TH, 2012

Pull out your soapbox and hit up our Inbox directly at:
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PHOTOGRAPHS BY WILL LIPMAN

THE DAPPER ACTION CAM

Contour has made a name for itself with its family of helmet cams. Touting 1080p video for that dirt bike excursion, the latest effort keeps what made the previous models top-notch gadgets while making a few design improvements for the new shooter.

THE DAMAGE:
$399

Click on product names to read full stories

PRICE: FREE

AVAILABILITY: DEVELOPERS ONLY

THE BREAKDOWN: WHILE REMAINING A DEVELOPER-ONLY UNIT, THE DEV ALPHA B OFFERS A UNIQUE DESIGN THAT HANDLES BB10 FLAWLESSLY.

BLACKBERRY DEV ALPHA B

Like its elder, the original Dev Alpha, the B has a top-notch 1,280 x 768 display on its front with good color saturation and viewing angles, but that screen is where the similarities stop. While the Dev Alpha borrowed heavily from the PlayBook's design, ahem, playbook, the B looks unlike any other BlackBerry. Its body is constructed entirely of plastic, save the aluminum power button up top and volume rocker on the side, plus the sliver of metal serving as the earpiece grill.

While it isn't as solidly constructed as its predecessor — seams where body panels met weren't uniform, and the power button had shallower travel than we'd like — the B still strikes us as a sturdy device, and, of course, it's not built for consumer consumption anyway. As for the Dev Alpha B's performance? Swiping from the home screen through the app grid was smooth, and in fact, all the graphical transitions we saw — from the unlock screen to opening various apps — were quite fluid as well. Granted, we only spent a few minutes with the device, but we never saw the hardware break a sweat, and we rather enjoyed our brief interaction with the fuller version of BB10 it was running.

BARNES & NOBLE NOOK HD+

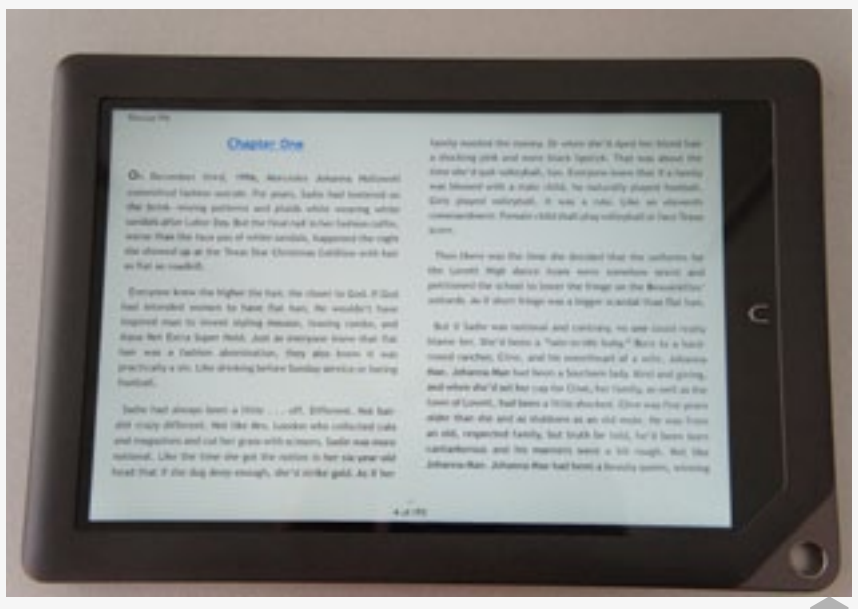
PRICE: $269 TO $299

AVAILABILITY: OCTOBER 2012

THE BREAKDOWN: BARNES & NOBLE'S 9-INCH TABLET PACKS A HI-RES DISPLAY AND DESIGN DETAILS FROM ITS PREVIOUS TABLETS.

Sure we heard some early rumblings about a new tablet from Barnes & Noble, and now a 9-incher has become official, the Nook HD+. Where the new HD borrowed some style cues from B&N's Simple Touch line, its bigger brother is the aesthetic descendent of Nook tablets past, borrowing that long, skinny body and even offering up a winking reference to the carabiner. Regardless of its distinctive design, the Nook HD+ actually does feel quite nice. At 515 grams, it's also pretty light — 20 percent lighter than the current iPad.

The high-resolution display is 1,920 x 1,280 at 256 ppi and is aimed at offering up the proper showcase from Nook Video's high-def offerings. UI-wise, we're talking about a Paper layout built on top of ICS. Barnes & Noble's still in the big bezel game here and the backside gets a nice soft-touch material. While the company is talking up the quality of the device's speaker, there's only one grille on the back. Inside, you'll find a dual-core, 1.5GHz OMAP4470 processor. The device seemed zippy enough in our time with it, though the company promises more advances as we push up to release. There's also a 6,000mAh battery that should give you either 10 hours of reading or nine hours of video.



PRICE: $269 (250GB BUNDLE)
AVAILABILITY: NOW AVAILABLE
THE BREAKDOWN:
SONY'S CONSOLE GETS THINNER AND LIGHTER AGAIN, TACKING ON A FEW DESIGN CHANGES IN THE PROCESS.

SONY PLAYSTATION 3 (2012)

Just after their rumored, pre-Tokyo Game Show announcement, we were able to snag a closer look at Sony's new consoles. While we weren't able to put our grubby mitts on the pair, we were able to take a gander up close at some of the exterior differences. Aside from the obvious color variations (at least in the white model that's definitely headed for Japan), the first change that immediately jumps out is the absence of the visible disc slot on the console's front. We surmise that discs now load via a sliding tray mechanism of some sort. There's also a grooved design up top, which makes a departure from the smooth casing and an attachable base is included to secure the unit when used vertically.

One thing is for sure, though: the new duo definitely gets even smaller in stature. In fact, Sony Computer Entertainment CEO Andrew House called the new model 50 percent smaller than the original (rather large) PS3, and 25 percent smaller than the previous slimmed-down version. For those looking for more storage space, the 500GB, charcoal-only option will be available on October 30th in conjunction with the *Assassin's Creed III* release — no word on pricing for that one just yet, though.

NOKIA ASHA 308 AND 309

PRICE: $99 (OFF-CONTRACT)

AVAILABILITY: 2012

THE BREAKDOWN: THIS PAIR STEPS UP TO SMARTPHONE STATUS, BUT FIRST-TIMERS ARE BETTER OFF WITH DEVICES LIKE THE NOKIA LUMIA 710.

They're not the most compelling devices, but for smartphone first-timers, they should do just fine. Nokia is updating the Asha Touch line with the 308 and 309 — two new members of the Series 40 family that have moved past the feature phone designation and into smartphone territory. Priced at an affordable $99 (off-contract), this dual- and single-SIM pair is near identical with 3-inch WQVGA displays, 2GB of microSD storage (expandable to 32GB) and a 1,110mAh battery.

It's worth stressing that the 308 and 309's new classification isn't just marketing fluff — the pair performs just like mini-me smartphones should. In fact, a surprising level of responsiveness that belies the humble 800MHz processor inside will impress you. Around back, the phones share a subtle, non-textured patterning that spreads out just below the 2-megapixel camera and serves to add a small amount of flair to what is an otherwise utilitarian build. Navigation through the interface was rather fluid and apps seemed to launch with an appreciable amount of speed; though we did witness some extended loading times. Mobile sites on the refreshed Xpress browser rendered slowly, but much of that had to do with the devices' reliance on an EDGE connection.

PRICE: $250

AVAILABILITY: OCTOBER 2012

THE BREAKDOWN: TDK'S SPLASH-PROOF SPEAKERS ARE WELL-SUITED TO OUTDOOR USE, BUT THE SET COULD USE A BIT OF A TREBLE BOOST.

TDK WIRELESS WEATHERPROOF SPEAKER

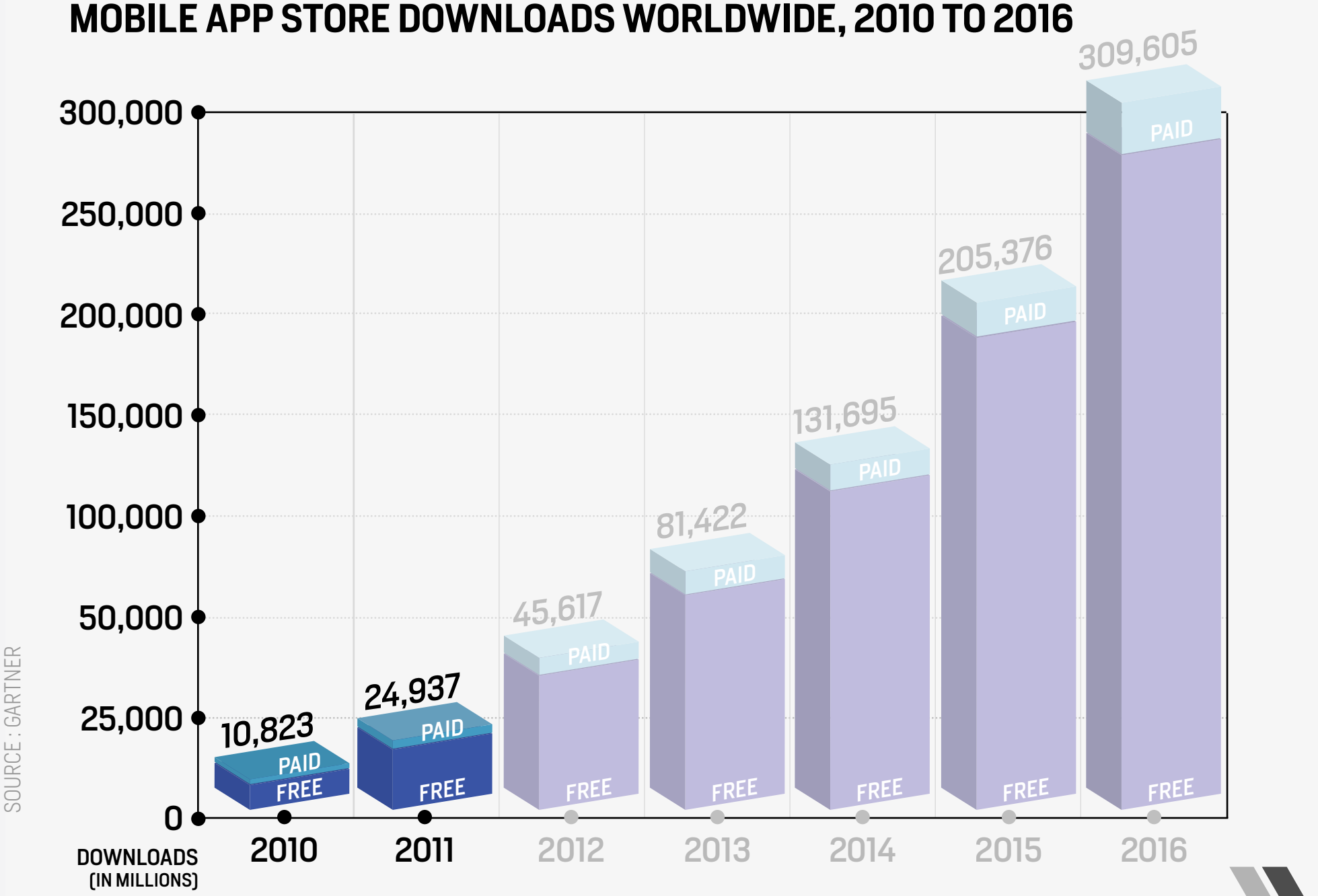
TDK announced a trio of speakers back at IFA, and though we didn't get hands-on in Berlin, we got a second chance at a New York City press event. In particular, the company is showing off its first ruggedized product, the Wireless Weatherproof Speaker. It has all the stylings of a run-of-the-mill portable speaker, except it also happens to be IP64-certified against the elements. When TDK talks about its durability, it talks about liters of dousing, so a splash on your next beach vacation shouldn't be an issue.

As for audio, it has two speakers up front, a subwoofer and two passive radiators 'round back. TDK declined to clarify the wattage, but we'll say this: the little guy is powerful enough that we could hear it over the din at the event that we attended. And, TDK had a larger, more powerful speaker playing nearby, and we still had no problem hearing the song coming from the weatherproof model. Granted, then, this was hardly the best scenario to evaluate audio quality, but we did sense that the treble was a bit trapped compared to the bass, which came through loud and clear. D

Free Apps Top the Charts

If you'd just put down *Angry Birds Space* for a moment, maybe we could tell you that mobile apps are kind of a big deal. How big of a deal? How about 45.6 billion downloads just this year — that's a serious amount of birds lost in space! All of those (projected) downloads aren't just *Angry Birds* flying into the final frontier, though. Gartner, Inc.'s latest mobile report doesn't actually break down how much of that enormous number pertains to Rovio's hit franchise, but it does note "free apps will account for nearly 90 percent of total mobile app store downloads in 2012." That means of the nearly 46 billion apps downloaded this year, approximately 40.6 billion were free. And the growth doesn't stop there. Gartner predicts that 93 percent of all app downloads will be of the free variety by 2016 — also, we'll be downloading over 300 billion apps worldwide by the same year.
— *Ben Gilbert*

MOBILE APP STORE DOWNLOADS WORLDWIDE, 2010 TO 2016



SOURCE : GARTNER

The Culture Series

By Iain M. Banks

Imagine a civilization in which technology has put the kibosh on poverty. A sprawling, hedonistic empire that delegates its hard work and hard decisions to sentient, maternal machines called Minds. Imagine these AIs can turn space-gloop into almost anything you desire: a lush planet all your own or a new head after an ungrateful barbarian lopped the last one off. This is how things roll in Iain M. Banks' *Culture* — a society explored across nine novels (so far), and through the lives of characters too intense to describe in just a few words. It's a society that revolves around one question: If everyone can have everything, how is anything worth striving for? There are millions of answers, each one more unexpected than the last. Here's one little example: a conversation between a cynical Culture missionary and a proud female shipwright:

> "Can't machines build these faster?" he asked the woman, looking around the starship shell.
> "Why, of course!" she laughed.
> "Then why do you do it?"
> [...] "Have you ever been gliding, or swum underwater?"
> "Yes," he agreed.
> The woman shrugged. "Yet birds fly better than we do, and fish swim better. Do we stop gliding or swimming because of this?"

— *Sharif Sakr*

Click on headlines to read full stories

Geeks, Swords and the Snow Crash Movie: Neal Stephenson in Conversation
By Tim Maughan
Tor.com
On the topic of science fiction, here's Neal Stephenson in a wide-ranging conversation with *Tor.com's* Tim Maughan, tackling everything from his $500,000 Kickstarter project to his new collection of essays to the ever-recurring topic of a *Snow Crash* movie, which is now closer than ever to production.

50 Years of the Jetsons: Why The Show Still Matters
By Matt Novak
Paleofuture
Yet more science fiction, this time going back to the birth of a TV show that continues to be vital 50 years later. That's, of course, *The Jetsons*, whose relevance is discussed in detail here by *Paleofuture's* Matt Novak, who's also following things up with an ambitious 24-part series looking at all of the show's episodes.

Google News at 10: How the Algorithm Won Over the News Industry
By Megan Garber
The Atlantic
The 10th anniversary of Google News can be a difficult concept to wrap your head around — for many, it's hard to imagine how we consumed news on the internet before it. It's also been quite a 10-year period for the news industry in general, which is made clear by Megan Garber in this piece looking at the service's rise and its future.

I HATE PASSWORDS

DISTRO 09.28.12 | FORUM | THIS IS THE MODEM WORLD

BY JOSHUA FRUHLINGER

I GET IT: The internet is a dangerous place. People want my stuff. There are bad people out there. Yadda, yadda, yadda. ❡ But the password requirements and security verification processes in place are Kafkaesque, mind-bending and straight-up annoying. ❡ Every time I need to access my online mortgage account, I am forced to reset my password because, without fail, I enter the wrong one at least three times. I couldn't tell you what my Apple ID is because it has an even itchier verification trigger finger, especially when you have more than one device accessing the same account. Get it wrong on one, and all your devices are borked.

HERE'S WHAT HAPPENS IN MY CASE:

1 I use several variations on a theme to keep things relatively easy to remember. I can get this right 90 percent of the time within three to five tries. In some cases, I don't get it in the first three, so I am forced to set a new password.

2 The system doesn't allow me to use a password that I've used before. So I come up with a new one.

3 Because I was forced to use a completely new password or capitalize one of the letters — and I'm never going to remember which one — I end up resetting the password all over again.

There has to be a better way to force consumers to protect themselves.

Sure, I could write the password down, and I have done this in a couple cases, but in doing so, am I not defeating the purpose? The first place a thief is going to look — if he's in my house — is on the notepad next to my machine. Or, better yet, Mr. Thief will be looking for an email in my inbox sent to myself titled "bank password."

In short, by thinking they're helping us, the good people coming up with password security measures are not only making things achingly tough for us, they're also creating new security issues because we're writing the things down. I appreciate the efforts, but this really has to change. There has to be a better way to force consumers to protect themselves.

Is capitalizing one letter and causing me to remember that one idiosyncrasy really going to save my tail down the road? Is the up-front pain every time I use a product good for our long-term relationship, Mr. Security?

Sure, there are clever programs that keep passwords in one file, but they too are protected by yet another password. And, to be frank, I don't want to keep all of my passwords in one place: I'd much rather a thief gain access to just one account instead of them all.

So let's try this: Let me choose whatever password I want. Then, let me sign a waiver of liability. It's not your problem if all my passwords are "1234." It's mine. I'm fine with that. Really.

By the way, my password is not "1234" and nor should yours be. I am sure people will blast me for simply not being able to remember my passwords, but when every single device and account has different requirements, what's a fool to do?

It's amazing, really, despite all the other advances we've made in user interfaces, that digital security still comes down to the streets we grew up on and our first pets' names. What happened to thumbprint readers? I had a laptop a few years ago that used one and it was pretty bulletproof. What about retina scanners? There's gotta be a better way.

IOS 6 GETS BACK FROM THE APP

DISTRO 09.28.12 | FORUM | SWITCHED ON

BY ROSS RUBIN

APPLE'S APP STORE has more smartphone apps than those of its competitors. But the sheer size of the library is not the only source of consternation for Google or Microsoft, which would both readily concede that it's also important to obtain the kind of key apps, optimized apps and platform-first apps the iPhone enjoys. The iPhone's commanding marketplace lead is due to several factors. These include the huge number and historical affluence of its users and the ease of its App Store. ¶ The iPhone, though, was not the first phone to have apps. In fact, in its early days, it didn't have apps at all as the company urged developers to create optimized web apps for the platform similar to what Mozilla is now advocating for its streamlined mobile operating system Boot2Gecko. Apple originally put its efforts into creating archetypical apps for tasks such as calling, browsing, email and mapping. Rather than open the iPhone to third-party developers at first, it hand-picked partners for various features, such as Google for maps

As the number of apps has exploded, though, relatively few have taken Apple's smartphone in bold, new directions.

and Yahoo for weather and stocks.

As the number of apps has exploded, though, relatively few have taken Apple's smartphone in bold, new directions. There have been many excellent — and many more mediocre — games. There have been websites and services — including Amazon, eBay, Facebook and apps from a range of banks, stores and other institutions — that have gone native. There have been some beautiful reference and educational titles. And there have been apps that have plugged past holes such as voice memos and turn-by-turn navigation. But the apps that have turned the iPhone into a more useful tool — be it as simple as a flashlight or as sophisticated as a language translator — have been relatively rare.

Developers must share some responsibility for this, but they can do only what Apple allows them to do, and the business model for something well understood and with potential universal appeal like a game can be far more lucrative than a guitar-tuning app.

Apple still highlights the quality of iPhone apps, trotting out graphically dazzling games to illustrate the increased horsepower of the handset. But the next chapter of its iPhone experience wraps up guided transactions in a package of core first-party apps that are again working with hand-picked partners. Take, for example, the process of preparing for going out to a movie. With Siri, someone can inquire about what's playing in theaters nearby, navigate to that theater using Apple's Maps app and present the ticket stub from the lock screen, all invoking Apple's app working with its selected partners.

It's doubtful that Apple will fully open up Siri to third-party developers anytime soon. As the number of topics and tasks grow, it becomes increasingly difficult for Siri to answer appropriately. But there may be other ways to tap into the more closed parts of iOS via Maps or Passbook. The larger question for the enterprising developers isn't what you have the freedom to code on the iPhone, but how you can profit from it. D

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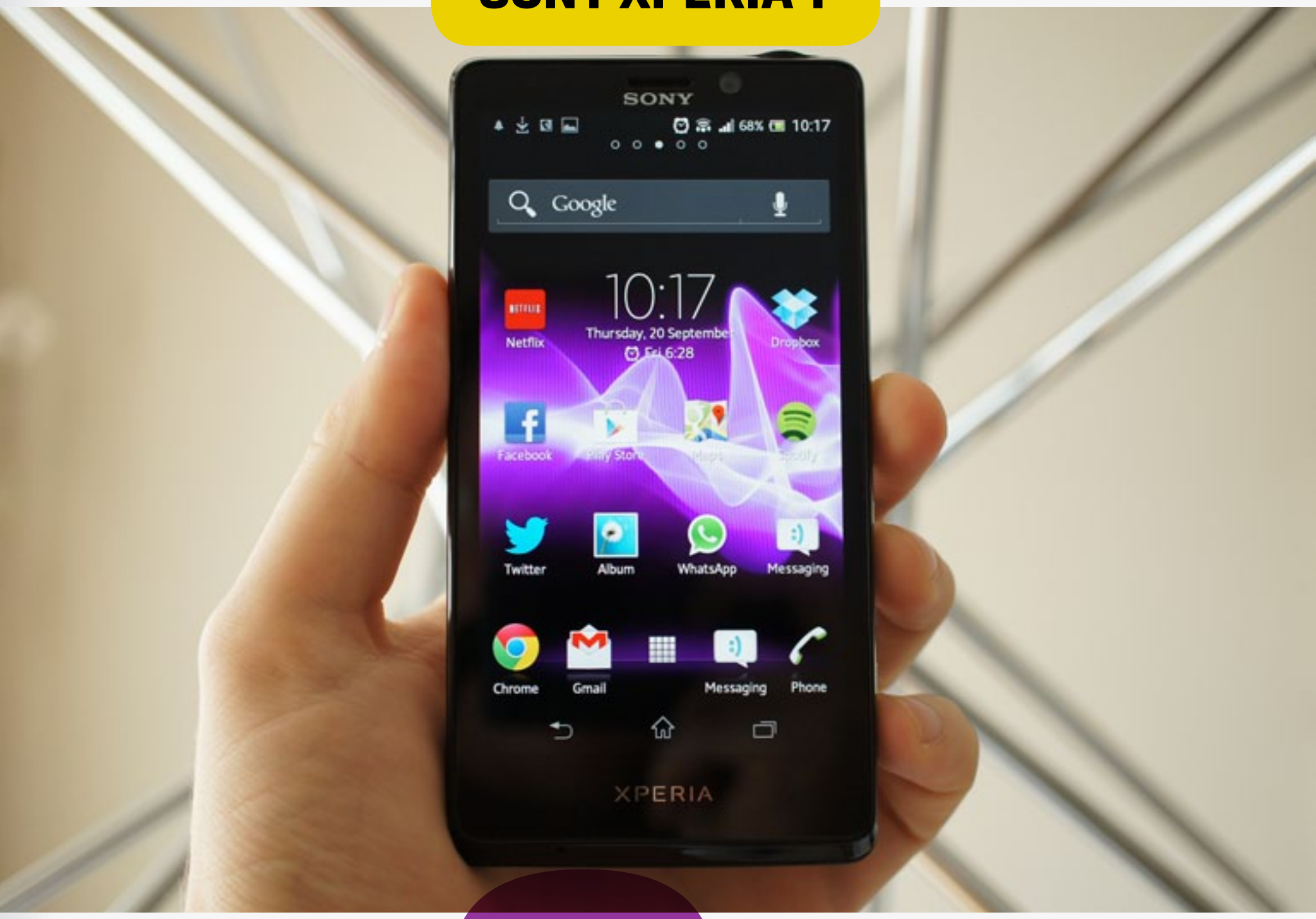
Vizio All-in-One By Dana Wollman

REVIEW

SONY XPERIA T



Sony's Xperia T receives some modest improvements over previous models, but is it enough to keep ahead of the competition?
By Mat Smith

SONY'S XPERIA T GOES by a few names. Depending on which country you're in, you might pick it up as the Xperia GX, or possibly even the TX. The final review sample that's passed our desk, however, is the Xperia T, the European HSPA version, headed to O2's UK stores in the coming weeks, at which point it will be free on £36 per-month contracts and likely replace the Xperia S as Sony's Android flagship. In comparison to Sony's spring smartphone, there's a similar 720p display, now stretched out to 4.6 inches, a different 13-megapixel camera, a new

1.5GHz Snapdragon S4 processor and Android ICS — with the promise of Jelly Bean soon after it hits stores. The Xperia T also revives a familiar hardware curve and has picked up onscreen Android buttons on its design journey. Design twists and promises of the latest OS aside, has Sony finally built a top-tier phone capable of going toe-to-toe with the smartphone heavyweights?

HARDWARE

When we were first introduced to it, the Xperia T was shaping up to be quite the looker, but when we pulled it out of its box, we found it a little bit ... underwhelming. It weighs in at 139 grams (about 4.9 ounces), it feels a bit chunky in-hand, and while Sony has perfected the art of the press shot, in real life the hardware doesn't quite cut it. The screen connects to a glossy plastic frame, while the back (and the majority of the sides) have a matte finish. Yep, Sony has continued to skip the glossy finish, and our fingertips couldn't be happier. Due to that Xperia Arc-inspired curvature, the phone is easier to grasp than you might expect from a device packing a 4.6-inch display. The way the screen portion of the side curves back inwards makes it easier to grasp than the smaller Xperia S. While it's been a matter of months since the company's last flagship arrived, button locations and access panels have changed, correcting some criticisms we've had with several of Sony's phones so far this year.

First up, those flimsy port covers are gone, with HDMI support now assigned to MHL within the micro-USB socket — which is also open to the elements. Even on the Xperia S, we never understood why Sony would cover up a port that could be used daily. The buttons have also been transplanted — all are now located along the right edge. Below the single flush cover for the micro-SIM and microSD cards, there's the power button, volume rocker and

Sony has continued to skip the glossy finish, and our fingertips couldn't be happier.

All of the T's buttons can be found along the right side.

two-stage camera button — all solidly constructed. The camera button requires a gentle touch to focus, while a hard-press will launch the camera app from standby. There's no removable cover, making the phone feel solid in our hands, although perhaps lacking the premium materials of other higher-priced rivals.

The colors are great on this non-PenTile display.

There's a 13-megapixel rear-facing camera, while the front-facing sensor captures 1.3 megapixels, capable of 720p recording. With Sony's Exmor R Sensor, the primary shooter can record up to 1080p video and is accompanied by an LED flash and mono speaker that's inconveniently placed where your fingers are likely to grip the phone. Otherwise, the speaker itself is sufficiently loud, with some distortion at top volume. The Xperia T's NFC credentials mean it can also relinquish audio responsibilities to Sony's recently announced speaker range.

DISPLAY

If you like what Sony's been offering on the Xperia S and Ion, you'll find the Xperia T performs just as well — but bigger. At 4.6 inches, coated in scratch-resistant glass, it's designed to plug into Sony's Entertainment hub and all the content it has on offer — if you're willing to commit to another ecosystem. It's another strong-performing screen — no AMOLED means less color distortion and no PenTile woes. The viewing angles appear identical to the Xperia S, meaning they're pretty damn good. We'd also like to mention here that those on-screen keys give the Xperia T a far more up-to-date air than its predecessors — Sony's catching up.

SOFTWARE

The Xperia T comes with a manufacturer-tinged version of Android 4.0 — Ice Cream Sandwich. This time around, the phone has onscreen buttons instead of capacitive keys, but at first glance the UI appears very similar to the Xperia S. This entails a sizable collection of Xperia widgets, with plenty pointing to So-

With the likes of Spotify and Amazon, we're still not seeing much to draw us into yet another eco-system wanting our credit card digits.

ny's homegrown software and services. Extending from a social feed to Music Unlimited, we started to re-purpose those homescreens immediately, clearing out the majority of them.

Sony isn't only going up against Google's own content store, but with the likes of Spotify and Amazon, and we're still not seeing much to draw us into yet *another* ecosystem wanting our credit card digits. There are also a lot of apps packed into the app drawer that are best left untouched. An EA games hub teases the likes of *Dead Space* and *Need For Speed*, but after tapping through, you'll be informed that none of the games listed are (currently, at least) supported on the Xperia T. The PlayNow hub does offer compatible games, but the quality will soon push you back to Google's richer games selection.

The onscreen multitasking button not only throws up shortcuts to currently running apps, but also shortcuts to calculators, timers and a memo-taking function. Sony's calling these "small apps" and there's a shortcut to install more of them in Google Play — although there's nothing to download from there yet.

For anyone who lives surrounded by Bravia TVs and Sony Blu-ray players, the Media Controller looks like a welcome addition, offering to transfer remote capabilities to your smartphone, although we didn't have a compatible set to put through its paces. A Movie Studio app comes pre-baked on the Xperia T, offering up some lightweight tools to chop up those home movies, while Smart Connect gives the user a lightweight interpretation of Motorola's Smart Actions — we took to using the night setting almost immediately. Unlike Smart Actions, these are partially limited by what you can link to the phone; "night" will switch the phone to silent and start up the alarm app when the device is charging and it's some time between 10PM and 7AM. These timings can be changed, and you can set other apps to launch when the phone is connected to headsets, chargers and other compatible hardware. But compared to Motorola's attempt, it's all a bit limited.

CAMERA

Sony has kept the camera unit recessed, meaning it thankfully dodges hard surfaces and finger smudges. The sensor is a minor bump up from the 12.1-megapixel sensor seen on the Xperia S, but the UI and results are similar. That is,

The Xperia T boasts a 13-megapixel rear-facing camera.

a lot of our shots looked sharp and in focus on the screen but were often mired in noise when it came to focusing in. Low light performance illustrated this much more, but we found our photo files were compressed to the same extent on the S model. You can adjust exposure, ISO, metering and white balance, and even adjust how the settings are displayed in the camera UI. The camera rockets into action from the physical button or even from the lock screen, although you have the option of capturing or focusing from either the touchscreen or the physical controls.

Videos demonstrate a good autofocus experience, and the image stabilization option does a good job of mitigating any shakiness. Again, you'll get a very similar experience from Sony's other recent smartphones.

BATTERY LIFE AND PERFORMANCE

That 4.6-inch screen sports an impressive 1,280 x 720 resolution, so we were looking forward to seeing how the Xperia T's 1,850mAh battery handled the workload. In summary, it delivered a middle-of-the-road showing. We got just under six hours of constant video playback, WiFi and 3G enabled regularly polling Twitter and our email. Sure, that's incrementally higher than the Xperia S, but given its non-removable nature, we were never quite confident that the Xperia T would go the distance. With medium to heavy use, we managed about a full work day, but we'd advise carrying either an external battery or a USB cable if you're going to work overtime.

The Xperia T totes a pentaband GSM radio. Through an HSPA+ connection on Three UK, we were hitting speeds of around 6 Mbps down and just under 2 Mbps up — comparable to other phones we tested nearby. Call quality was also strong — a plus on occasions when you find yourself using those free minutes.

The 1GB of memory directly matches the Xperia S — as does the most recent Android build (4.0.4) but undulations between the UI mean there are at least some minor software differences. We updated our Xperia S scores here to reflect its Android 4.0 refresh, but the Xperia T still dominates in these tests, with the Snapdragon S4 processor predictably besting its S3 relative, despite the same 1.5GHz clockspeed. Pitting the new phone against the HSPA version of the Galaxy S III produced a mixed bag on these scores. In day-to-day use, however, the Samsung quad-core phone offers a generally smoother experience, while we found the Xperia T would often stall during web sessions — on both its own browser and Chrome. However, games and movies ran smoothly and

BENCHMARK	SONY XPERIA T	SONY XPERIA S	SAMSUNG GALAXY S III (GLOBAL VERSION)
QUADRANT	**4,981**	2,994	4,454
VELLAMO	**2,375**	1,534	1,751
ANTUTU	6,977	6,797	**11,960**
SUNSPIDER 0.9.1 (MS)	1,775	1,852	**1,460**
GLBENCHMARK EGYPT OFFSCREEN (FPS)	55	34*	**99**
CF-BENCH	9,568	6,245	**13,110**

SUNSPIDER: LOWER SCORES ARE BETTER. *SCORE TAKEN FROM ANDROID 2.3 VERSION

It's difficult to pin any major improvements or innovations that the Xperia T brings to phone buyers.

streamed without issues, making the patchy browser performance even more disappointing.

WRAP-UP

The Xperia T is a deceptive phone, with a design that looks and feels narrower than it actually is. Despite that huge display, it falls within the same dimensions as smaller-screened smartphones, with Sony shedding at least some of those exaggerated borders. It lands favorably with Android Ice Cream Sandwich OS, something that was notably missing when the Xperia S landed. But, with a software update now readily available on that older phone (we refreshed the older phone with the latest software to compare in this review) it's difficult to pin any major improvements or innovations that the Xperia T brings to phone buyers.

We still carry a torch for Sony and its tech launches, but our attention is rightfully shifting to the competition. Having both the S and T models side by side, it looks like one is the prototype of the other and we're not even sure which came first. Onscreen buttons and a marginally higher-resolution camera are certainly improvements, but a fully-priced Xperia T is hard to recommend over the now-discounted Xperia S. D

Mat is an Associate European Editor living in the UK. He's a Liverpool supporter who enjoys Japanese game shows.

BOTTOMLINE

SONY XPERIA T

£36
(MONTHLY CONTRACT)

PROS

- Lovely high-res 4.6-inch screen
- Plenty of storage space, microSD expansion
- Close to the stock Android experience

CONS

- Battery performance trails rival flagships
- Too many pre-installed apps

BOTTOMLINE

The Xperia T is a modest improvement over Sony's older phones. It has a great display, but rivals still offer better battery life and higher-quality design.

REVIEW

SONY XPERIA TABLET S

Can this slimmed-down, Xperia-branded Tablet S reboot help Sony take a top spot in the slate race?

By Joseph Volpe

For Sony, it's all about the presentation. To be sure, since the company put all of its mobile products under one roof, it's achieved more of a balance between style and substance than it did with the original Tablet S and Tablet P — two devices that had a lopsided emphasis on unique, proof-of-concept designs over user experience. It's fair to say those initial tablet efforts failed to resonate with consumers, leaving the company with little recourse other than an all-out do-over.

Which is why the new Xperia Tablet S has a lot to prove: it can't get by based on looks alone. Run-

ning skinned Ice Cream Sandwich and packing a quad-core Tegra 3 SoC, this 9.4-incher maintains the same 1,280 x 800 IPS LCD panel used on the first-gen S, and even assumes the same folded-over magazine shape — albeit, in thinner form. Yes, that full SD slot remains, but you might not need to rely on it now that the tablet comes with up to 64GB of built-in storage. So, will an emphasis on OS, ecosystem (Video Unlimited, Music Unlimited, Crackle, Reader, etc.) and a slimmed-down build make up for the blunders of the first-gen Tablet S? Will a $399 starting price help this WiFi-only tab stand out amongst the Android competition? Stick around as we find out whether this S is more than initially meets the eye.

HARDWARE

For all the Xperia Tablet's quirks, at first glance it comes across as just another rectangular, black-bezeled slate — when you're looking at it head-on, anyway. There's nothing conspicuously "Sony" about it intially: its front face is relatively plain, with no flourishes other than the front-facing camera and company logo placed neatly in the upper-left corner. Only when viewed from the sides or back is the tablet's unique shape immediately apparent. Seen from a side angle, the device appears to be floating, suspended only by that folded-over wedge. And it must be said that the device now lies flatter, as opposed to the original Tablet S, which had a more pronounced slant. Almost all of the ports and hardware keys are hidden out of sight, either within the folds (power and volume on the right edge, 3.5mm headphone jack and covered SD slot on the left) or buried behind a removable bit of plastic (e.g., the charging port at the base). It's that last bit that has us shaking our heads and fists at Sony. We're not big gamblers, but we're willing to bet users will lose that silver-colored nub within one week of use.

Around back, the Tablet S is a two-tone, two-tier affair. On the original, the magazine-like fold extended nearly

The new and slimmer fold-over design of the new Tablet S.

three-quarters of the way down, but here it occupies only about a quarter of the backside. It's nicely textured, too, but you won't notice that subtle tactility until you grip it. Smack dab in the middle is the 8-megapixel rear camera, accompanied not by a flash, but by an IR blaster. Aside from that, Sony's once again shuffled its Xperia branding off to the side, allowing the smooth aluminum construction to speak for itself.

By now you're probably wondering how the slate feels in the hand and we're pleased to report that quirky back curve actually serves a functional purpose. When held in landscape, the majority of the tab's weight is distributed to the fold, freeing users from unnecessary wrist strain. This also means the device tilts forward ever so slightly, but it's not so extreme that it makes the thing unstable. What's even better, though, is how it fares when you grip it one-handed in portrait mode. Clearly, you're forced to accommodate the fold in whichever orientation you choose, but it does make for an exceptionally natural grip, and the generous bezel leaves just enough room for your thumb to comfortably rest.

Your thumbs will appreciate the generous bezel width.

DISPLAY AND SOUND

We hope you like staring into your own reflection because that's what it's like to use the Tablet S. Despite the OptiContrast technique applied to keep glare to a minimum and the display visible in bright light, it does anything but that. Indoors and out, the slate reflects even the slightest trace of surrounding light, making it more difficult to make the most out of that 9.4-inch screen. Oh, you'll still be able to read the screen in direct sunlight somewhat with brightness set to max, but even then you have to angle it just so.

Complicating matters further is the

low-friction coating the company has applied to the screen. In theory, this should feel nice beneath the fingers, but mostly, it lends itself to a slippery feel. We already have to contend with a software keyboard for typing, but add to that a slick screen and, well, you're in store for a load of errors.

The Xperia Tablet S features a 9.4-inch (1,280 x 800) IPS panel that delivers colors and contrast typically associated with that solution. On the whole, this translates into images, icons and text that appear crisp with balanced tones that appear ever so slightly muted. For sure, though, the tab could've benefited from some of the saturation afforded by Super AMOLED displays, giving it an extra push past the glare towards better readability. Regardless, if you're planning on using this to watch HD content, you won't have much to gripe about since it handles 720p video with ease. Audio isn't the most robust — there's a noticeably tinny quality to it — and the dual speakers' positioning just behind the tablet's base means much of that sound ends up being misdirected. At maximum volume it's far from overpowering, which should work well when within a relatively quiet room, but not so much in a public space.

SOFTWARE

When Sony pulled back the curtain on the Xperia Tablet S at IFA, it drilled home the point that the Xperia brand would entail more of a unified user experience. After all, the market's now glutted with samey Android tabs, so if the Tablet S is to succeed, it needs to be different. How does it do that? Well, for starters, the primary home screen is almost completely taken up by two rows of Sony-branded "apps." We're putting that in quotes because one such application, Sony Select, is really just a web shortcut that leads to a curated "app store," which in turn redirects to Google Play.

That minor niggle aside, when you power on the device you'll instantly be greeted by the company's content ecosystem: Music Unlimited, Video Unlimited, Play Memories Online, Reader by Sony, Walkman

Toolbars can be found taking up home screen real estate.

There's something very cramped about the user experience that we found off-putting. It's busy precisely where it shouldn't be.

and Socialife. Whether you choose to opt-in for this suite over Google or even Amazon's more well-established offerings is purely a matter of personal choice. But we can't see many users abandoning their pre-existing libraries and accounts for yet another third-party option.

Pure Google enthusiasts on the hunt for a slate with the buttery smooth performance of Jelly Bean will want to hold off on buying this, or maybe just grab a Nexus 7. That's because the Xperia Tablet S ships with a custom layer atop Android 4.0.3. Though Sony is averse to calling its UX a "skin," there's really no other name for it — the customizations are quite obvious. For instance, the home screens are now bordered by the company's toolbars, which offer quick-access shortcuts for the browser, camera, mail app and settings menu, along with a Google search box up top, an icon for Guest Mode (more on that shortly), and shortcuts for Sony's built-in TV Remote application.

These tweaks, combined with the pre-loaded Sony apps and widgets, end up giving the S a cluttered look and feel. There's something very cramped about the user experience that we found off-putting. It's busy precisely where it shouldn't be. But on the off chance you don't mind these software customizations or even find them useful and are willing to wait for that promised Android 4.1 update, then by all means, shower Sony with your dollars. (For the record, Sony has not given a precise ETA for its JB update. Makes sense; updating that skinned UI could take time.)

If you do have kids or frequent visitors around your home who like to tinker with your tech toys, you'll be glad Sony included Guest Mode on the S. It's basically a form of parental control for your tablet. The setup is quite simple: after creating a user-specific profile, you can then select which apps you want to grant access to and even a password so you can exit out of this protected mode and back into the full software experience. Users operating within these walled environments won't have much ability to customize the tablet outside of setting shortcuts or swapping out the wallpaper.

In keeping with the domestic theme, Sony's built-in TV Remote control app is intended to let you control your flat-screen while you casually browse the web from your couch. This, too, is pretty straightforward, though you'll need to read through a bevy of menus before you're prompted to select the

proper television manufacturer from a seemingly endless drop-down list. Barring any incompatibilities, you should have full remote functionality up and running in under two minutes — that's how long it took us to start toggling volume control on our office set. There's even the option to customize your button layout and set macro functions for things like powering on your TV or cable box. All told, it's a neat addition to the S, but not really enough of a killer feature to help this Android tab rise above the competition.

So, we've already touched upon the bloat Sony's shoe-horned onto the Xperia Tablet S, but just to give you the full tally, the software load includes 27 pre-installed apps, including AccuWeather, Evernote, OfficeSuite, Hulu Plus and Zinio, among others. To be clear, you'll be able to uninstall some of these third-party applications, but not Sony's own.

PERFORMANCE AND BATTERY LIFE

There may be a Tegra 3 heart buried within this Sony-made slate, but that quad-core performance doesn't quite shine through. Every so often, the Xperia Tablet S evinces a here-again-then-not sluggishness that just doesn't match up to its powerful CPU. Attempt to wake the tab from a sleep state and you *could* wind up waiting up to 10 seconds, during which time you'll likely mash the power button repeatedly. Make it through to the home screen and it's more or less a game of chance: will navigation be brisk and smooth or jittery and halting? The same goes for jumping in and out of the app drawer, a transition that either zooms without a hitch or stutters noticeably. This disconnect between raw processing power and inconsistent real-world use also extends to the browser, which routinely loaded full desktop pages quickly, but

BENCHMARK	SONY XPERIA TABLET S	ACER ICONIA TAB A700	ASUS TRANSFORMER PAD TF300	TOSHIBA EXCITE 10
QUADRANT	**4,349**	3,311	3,695	4,016
VELLAMO	1,459	1,283	1,320	**1,471**
ANTUTU	**11,301**	10,499	N/A	N/A
SUNSPIDER 0.9.1 (MS)	**1,608**	1,970	2,120	N/A
GLBENCHMARK EGYPT OFFSCREEN (FPS)	**68**	59	N/A	N/A
CF-BENCH	**12,625**	11,567	N/A	N/A

SUNSPIDER: LOWER SCORES ARE BETTER

had a difficult time keeping pace with rapid scrolling and pinch-to-zoom.

Other problems cropped up in our time with the S, like its occasional inability to turn on WiFi or lock onto a WLAN signal. Each time this trouble surfaced, we were able to temporarily fix it with a quick reboot. But that's just not an acceptable solution for a market-ready product. Sony has acknowledged the problem in the form of an early software update, which claims to address the issue.

Pitted against other Tegra 3-toting rivals, all clocked at 1.3GHz and packing 1GB RAM, the Xperia Tablet S generally notched top marks, with an impressive SunSpider result and smooth frame rates. However, we weren't able to get definitive scores across every benchmark for the Transformer Pad TF300 and Excite 10, so we can't solidly call this one for Sony. Where performance was quantifiable, however, the S is clearly the undisputed champ. Which is why it's such a shame that the tab falls prey to performance hiccups in real-world usage.

Sony's tablet fares respectably on the power management front, with an additional settings option to automatically scale down backlight levels. With light to moderate use, you can expect a few days' worth of juice out of the 6,000mAh battery. Put it through our formal rundown test, however, and that longevity takes a hit, eking out eight hours and 31 minutes — a result that puts the S fairly far down on the tablet totem pole, particularly compared to other 9- and 10-inch tablets.

TABLETS	BATTERY LIFE
SONY XPERIA TABLET S	8:31
SAMSUNG GALAXY TAB 7.7	12:01
APPLE IPAD 2	10:26
ACER ICONIA TAB A510	10:23
ASUS EEE PAD TRANSFORMER PRIME	10:17 / 16:34 (KEYBOARD DOCK)
SAMSUNG GALAXY TAB 10.1	9:55
APPLE IPAD (2012)	9:52 (HSPA) / 9:37 (LTE)
APPLE IPAD	9:33
ASUS TRANSFORMER PAD INFINITY TF700	9:25
TOSHIBA EXCITE 10	9:24
MOTOROLA XOOM 2	8:57
HP TOUCHPAD	8:33
ASUS TRANSFORMER PAD TF300	8:29 / 12:04 (KEYBOARD DOCK)
ACER ICONIA TAB A700	8:22
ACER ICONIA TAB A200	8:16
SAMSUNG GALAXY TAB 7.0 PLUS	8:09
AMAZON KINDLE FIRE	7:42
GALAXY TAB 2 7.0	7:38
ACER ICONIA TAB A500	6:55

CAMERA

We'll state this as plainly as possible: tablets are terrible for photography. If you need to snap quick shots on the go, please default to your smartphone — that's why they're called mobiles. Tablets, on the other hand, are awkward and unwieldy and the S is no exception. Add to that the slickness of the S' screen and its inability to adjust zoom with the volume rocker and you have a pretty good excuse to never use the camera app.

Pictures taken with the rear 8-megapixel camera are actually pretty decent — when you can get the slate to properly focus. On the whole, images are clear with a considerable depth of field, while color is accurate though dull. The zoom function should mostly be avoided as it requires using the onscreen slider and the resulting shots are so blurry as to be unusable. The camera app offers the usual array of selectable scene modes, in addition to the ability to scale down the resolution / aspect ratio and toggle geotagging.

Video recorded in 1080p is clean and distinct, but the autofocus constantly readjusts (a setting we pre-selected). It doesn't render playback unwatchable, but you definitely shouldn't rely on the S to digitally immortalize those precious moments either. At the time we shot our brief clip, there was noisy construction in the background, drumming from nearby performance art and the surrounding sounds of traffic, none of which had a negative impact on the recorded audio. To our surprise, the tab managed to mute most environmental noises without dampening the overall sound.

THE COMPETITION

The Xperia Tablet S starts at $399 for a 16GB WiFi-only model — you'll have to cross the pond for a 3G option — and tops out at $599 for the full 64GB enchilada. But there are other Android tabs with ICS and Tegra 3 internals that could potentially sway your purchasing hand. ASUS' Transformer Pad TF300 offers the same 1,280 x 800 resolution and base configuration at a cheaper cost ($380, keyboard dock not included). True, it's somewhat older, having debuted in the spring, but at least you're getting vanilla Ice Cream Sandwich. Then there's Acer's Iconia Tab A700 at $450 which steps up to a 1,920 x 1,200 display and a standard 32GB of storage, but offers less impressive battery life. For the record, the iPad 2 also costs $399, though you're getting a slightly lower-res screen. (Battery life, at least, is excellent.) The biggest selling point, of course, might be Apple's walled-in ecosystem, which you may or may not have invested in (or be willing to invest in).

WRAP-UP

The Xperia Tablet S was Sony's second chance at getting the Android tablet space right. It also represented an opportunity for the company to extend the esteemed Xperia brand to another product category. If we were to judge

The Tablet S' ergonomic design is its standout feature.

it based solely on its ergonomic build, then yes, the S wins high marks for comfort. We're not entirely sold on this folded-over magazine shape as a standard for the line going forward, but for now it works, and we're eager to see how it evolves over time.

Unfortunately, the S also misses the mark in everyday performance, doling out an uneven software experience that stumbles more than it pleases. Granted, most tablets we've tested hiccup at least a little, but for $399 you might be better off low-balling it for the same specs. While the Xperia Tablet S does feel like an improvement over its predecessor, it ultimately leans too much on the crutch of signature design while skimping on a polished user experience. D

Joseph Volpe is ambiguously ethnic. He is also an Associate Editor at Engadget.

BOTTOMLINE

SONY XPERIA TABLET S

$399+

PROS

- Ergonomic design
- Built-in IR blaster
- Intuitive parental controls

CONS

- Inconsistent performance
- Heavily customized home screen
- Camera app is not user-friendly

BOTTOMLINE

Sony's Xperia Tablet S feels unfocused, with more of an emphasis on hardware design than software performance.

REVIEW

VIZIO ALL-IN-ONE

Vizio's new All-in-One draws on its television expertise to provide a great display and modern design, but will the interface issues spoil the fun?

By Dana Wollman

We see lots of computers announced every year: many of them are forgettable, and we don't even have the manpower here at Engadget to review them all. You might wonder, then, why we've been a little fixated on Vizio's. Well, for starters, up until a few months ago the company didn't even make PCs, and now it's selling five. Secondly, they actually look pretty good, especially for an outfit that's best known for its value-priced TVs.

We've already had a chance to take its 14-inch Thin + Light laptop for a spin, and came to the

conclusion that, although it had a flaky trackpad and poor battery life, it represented a good start for a company that hadn't previously made a computer. Now we're taking a look at one of the company's all-in-one desktops — the 24-inch version, to be exact. At $800 and up, it, too, is attractively priced, with an eye-catching metal design, external subwoofer and a crapware-free Windows install. But is it as good as it looks? Let's find out.

LOOK AND FEEL

Back at CES, when Vizio first announced its plans to enter the PC market, the overwhelming reaction from Engadget and other critics was that the company's designs actually looked pretty good. Compared to other all-in-ones, with their complex, tilting hinges and easel-like frames, this desktop is quite simple in its design: what we have here is a flat, metal base and a thin, lamp-like stand, topped off by a 1080p display. (It's available in 24- and 27-inch sizes.) All the components — the CPU, the RAM, etc. — live inside the base. Interestingly, Vizio was so intent on this form factor that it went with a mobile (read: notebook-grade) processor because that was the only thing that would fit inside a compartment this thin. Had the engineering team used desktop parts, a company rep told us, the designers would have had to go in a completely different direction. Was putting form before function worth it? Read on till you get to the performance section and decide for yourself.

Was putting form before function worth it?

Fish around the edges of the base and you'll find all the ports, including an Ethernet jack, two HDMI inputs, an SD reader, an audio port, eSATA and four USB 3.0 sockets. For the most part, these ports are lined up on the back edge, though you'll have slightly easier access to the memory card reader, headphone jack and one of the USB 3.0 ports, all of which are tucked on the right side.

A chromed lamp-like arm supports the 24-inch display.

Now, here's where things get interesting. A single cable comes out of the base and, instead of plugging it directly into an outlet, you connect it up to the external subwoofer, which doubles as a power source. From there, another cable connects the 'woofer to the power outlet. Wrapping things up, the All-in-One ships with a wireless keyboard, remote control and Magic Trackpad-style touchpad, which we'll talk about more in just a moment. The remote, by the way, has a simple design: volume controls, a settings key and buttons for navigating through the on-screen menus. Pretty self-explanatory stuff.

All told, it's an impressive-looking package, though as it turns out, the machine doesn't feel quite as nice as it looked back at CES. The metal surfaces have a hollow, plasticky feel to them even though they are, in fact, made of metal. And while the display is tiltable, it wobbles uncertainly if you so much as tap the bezel. The devil is always in the details.

The set of three wireless peripherals and controls.

KEYBOARD AND TRACKPAD

For better or worse (mostly worse), this is the same type of keyboard used on Vizio's new laptops. As we said when we reviewed the Thin + Light, it feels like the company's engineering team tried a little too hard to reinvent the typing experience. And what an odd design it is: it's not a chiclet layout, but this also doesn't mark a return to dense, cushy keys either. In fact, the keys are about as shallow as they would be on island keyboard, except they're packed together so tightly that they bleed into one another. Were it not for some beveling around each individual key, you might struggle to hit the right one without pausing to look down at your fingers. Indeed, we made plenty of typos while drafting this review, and that was even after several days of use. What's more, the keyboard exhibits a good deal of flex, even if you're not typing that forcefully. It's not backlit, but that seems to be the least of its problems. If it's any comfort, though, important keys like Enter, Backspace, Caps

The touchpad drivers here are beyond half-baked.

and Shift are amply sized, so those, at least, are easy to find.

Unlike most other desktops, Vizio's All-in-One doesn't ship with a mouse but rather, an Apple-inspired external touchpad. It's a spacious thing, with a built-in touch button — basically an overgrown version of the touchpad you'll find on most laptops. And yet, the learning curve might be steeper here for folks who've never used a desktop with anything *but* a mouse. Even if you can get used to resting your hand on an external trackpad, though, this pad is virtually unusable. Harsh language, we know, but the drivers here are beyond half-baked. Even something simple like dragging the cursor across the screen can feel like a chore, and don't get us started on what it's like to point and click on a small onscreen object, like a drop-down menu. The cursor might go here and then there, before hitting the spot you meant to click. The worst scenario, though, is when you swipe the trackpad and it doesn't respond at all.

And while the pad offers plenty of space to pull off multi-touch gestures, we slogged through a good deal of misfires. Try and do a two-finger scroll, for instance, and you might accidentally zoom in on the page. We even had some accidental pinch-to-zooms while attempting to point and click things. You can, of course, bring your own mouse to the table. It just won't match the stylings of the PC, keyboard and bundled remote.

DISPLAY AND SOUND

Given that Vizio came up through the TV business, it isn't surprising that one of the All-in-One's strongest features is its display. The 1,920 x 1,080 resolution was crisp enough for photo slideshows, movie watching and general window-juggling. More than the pixel count, though, it's the quality that impressed us: the blacks here are deep and the colors are pleasing without being oversaturated. The viewing angles are also top-notch. As it happens, we reviewed the All-in-One in an office filled with natural light, and even when the sun was shining in on the screen, reflection was never an issue. We'd also add that the display looks good at a variety of angles but again, because it's so glare-resistant, we didn't find ourselves adjusting the monitor that often.

In addition to that external subwoofer, the machine has two speakers, located on either side of the computer's

This beefy subwoofer doubles as a power supply for the PC.

base. And man, what a nice setup it is, especially if you tend toward bass-heavy music. The subwoofer is powerful enough to make your desk vibrate, but the sound itself barely gets distorted as you crank the volume. *Okay*, if we're being picky, we noticed that the high notes sounded different at higher volumes, but low notes stayed consistent. Either way, it's a clear improvement over the out-of-the-box sound you'll get from most other PCs.

PERFORMANCE

The $950 configuration we tested comes with a Core i5-3210M processor, clocked at 2.5GHz, paired with 4GB of RAM and a 1TB hard drive. On the one hand, many competing systems also have mobile processors, but 4GB is a little stingy for a machine close to $1,000. Indeed, its synthetic benchmark scores aren't all that impressive. In PCMark Vantage, for instance, it notched 6,581, which falls short of most laptops we've tested with similar Core i5, Ivy Bridge CPUs. In the disk performance benchmark ATTO it notched top read speeds of 113 MB/s and max writes of 112 MB/s, and while that's reasonable for a spinning hard drive, it's nothing to write home about.

When it comes to graphics clout, too, the All-in-One delivers lackluster performance, summed up neatly by a 3,760 average score in 3DMark06. Now, to be fair, Vizio's All-in-One isn't marketed as a gaming rig, but even so, that kind of score matches what we saw from laptops running last-gen Sandy Bridge chips. Ivy Bridge has been shown to provide a nice bump in graphics horsepower over last year's systems and indeed, most Ivy Bridge machines we test manage scores somewhere in the 4,000s or 5,000s.

The base houses both the computer and all the ports.

SOFTWARE AND WARRANTY

For all the things Vizio got wrong on its first try — the performance, the touchpad — it *nailed* the software experience. Across all of its PCs,

it's going with a Microsoft Signature image, a clean, crapware-free install, approved by Microsoft itself. Sure, you could always uninstall those programs one by one, but it's infinitely more pleasant to boot up a computer for the first time and be greeted by a blank desktop. We wish more OEMs would do this, but since they don't, we're thankful that Microsoft sells Signature systems direct to consumers.

Another thing you'll find on every Vizio PC: a key with the company's logo on it (aka the V Key), which acts as a shortcut to both driver downloads and content streaming services (this is a company with roots in TV, after all). But, because this is a bloat-free machine, none of this software is actually installed on the system. Rather, pressing the key launches a webpage, peppered with links to Netflix, Hulu Plus, Amazon Instant Video, Rhapsody and Vudu. When we first tried it out, there was also a banner stretching across the top telling us a touchpad driver update was ready to download (a good thing, since the update didn't turn up when we checked for new drivers in Windows Device Manager).

Like most consumer systems (mobile or otherwise) the Vizio All-in-One comes with a one-year warranty.

CONFIGURATION OPTIONS

As we said, the Vizio All-in-One comes in two sizes — 24 and 27 inches — and it's available in three configurations each: Core i3, Core i5 and Core i7. All of these machines are pre-configured, so what you see is what you get in terms of specs; you can't upgrade things like the RAM or hard drive speed. Starting with the 24-incher we reviewed, prices range from $700 for the Core i3 to $950 for the i5 and $1,000 for the i7. The entry-level version has a modest 500GB of storage. The i5 model we tested steps up to 1TB, and the i7 one combines 1TB of storage with a 32GB SSD for faster boot-ups. Similarly, the two lower-end systems have 4GB of RAM and Intel HD 4000 graphics, while the top-shelf model has eight gigs and is offered with a discrete NVIDIA GT 640M LE GPU. Whichever machine you choose, you'll get an IPS panel with 1,920 x 1,080 resolution.

It's a similar story with the 27-incher, though the specs are better. The base-level model comes with 4GB of RAM and a 1TB HDD. The Core i5 version steps up to a 1TB drive coupled with a 32GB SSD. It also has that 640M LE GPU. Finally, the Core i7 model has all that, plus twice the RAM. Current prices for the 27-inch models are $800, $1,150 and $1,250, respectively.

THE COMPETITION

While some companies such as Toshiba only entered the all-in-one market rela-

The display is prone to wobbling at the slightest touch.

tively recently, HP has been pushing AIOs aggressively for quite some time now. Indeed, we had to whittle down our options on HP's site from about a dozen before picking out something comparable to recommend. Of the non-touch-enabled models, the most similar machine would seem to be the 23-inch Envy 23, which starts at $1,000 ($900 after instant savings). At the entry level, you get a 3GHz Core i5-3550S processor, a desktop-grade chip in the Ivy Bridge family. Like the Vizio All-in-One, it has a 1,920 x 1,080 display, except this guy comes with 6GB of RAM and 1TB of storage, minimum. It's also worth pointing out that this comes with two years of warranty coverage, not one.

Speaking of Toshiba, the company's fledgling desktop line is in the midst of a transition of sorts: it's phasing out its non-touch-enabled DX series and ushering in the LX series, some of which will have touchscreens. Right now, only the 23-inch LX830 is available; the 21-inch LX815 (non-

Here's hoping Vizio has returned to the drawing board and is working on something more polished.

touch only) is coming sometime this quarter. The cheapest configuration with an Ivy Bridge processor costs $930 (we don't recommend paying less for a model with a Sandy Bridge chip). It comes with 1TB of HDD storage and 8GB of RAM, which is generous compared to the four gigs Vizio is including at that price. These, too, have mobile, not desktop, processors.

And who could forget Dell? The company's non-touch Inspiron One 23 starts at $750 with a Sandy Bridge Core i3 processor, a 1TB 7,200RPM drive and 6GB of RAM. It, too, has a 1080p display and integrated Intel HD 4000 graphics.

For the most part, the machines we've mentioned in this size and price range don't have touchscreens. Not the case with Lenovo, though. The company recently announced the IdeaCentre A520, a $1,000 desktop with a tilting 23-inch touchscreen that can lie nearly flat. For the money, too, it has an IPS panel and can be configured with up to a Core i7 processor, 8GB of RAM and a Blu-ray player. (Hey, bonus points for even being configurable.) Like many other all-in-ones (including the particular Vizio configuration we tested) it will only be available with integrated Intel HD 4000 graphics.

Sony, too, is offering better specs than Vizio, but then again, its lowest-end L series desktop starts at $1,100 — a $200 premium over Vizio's entry-level machine. At the very minimum, you get a mobile Core i5-3210M processor clocked at 3.1GHz; a 1TB 7,200RPM drive; 6GB of RAM and a 1,920 x 1,080 display.

It almost seems pointless to mention the iMac, since it costs hundreds of dollars more and runs a completely different operating system, but here's a quick summary: it's available in 21.5- and 27-inch sizes, with the former starting at $1,199 and the latter going for $1,699 and up. Assuming you get the $1,199 model (since that's the only one remotely comparable in price to the Vizio we reviewed), you'd be getting a 2.5GHz Core i5 processor, 4GB of RAM and a 500GB 7,200RPM hard drive. Additionally, it packs a 512MB AMD Radeon 6750M GPU, whereas most of its competitors come standard with integrated graphics (or don't even offer a discrete option).

WRAP-UP

Though it's a different form factor, the Vizio All-in-One ultimately falls prey to some of the same missteps as the company's first generation of laptops.

VIZIO ALL-IN-ONE

It's a good design, but suffers major usability issues.

Which is to say, a flat, oddly shaped keyboard and a supremely unreliable trackpad amount to some serious usability flaws. Between that and the lackluster performance, Vizio's emphasis on modern design seems to eclipse almost everything else that might be important to users. It's a shame, too, because with a nice display, clean Windows install and a subwoofer, it has the makings of a fine machine. Until the engineering team comes up with a suitable trackpad fix, though, those usability issues make it very difficult to enjoy what this machine actually has to offer. Here's hoping Vizio has returned to the drawing board and is working on something more polished. D

Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.

BOTTOMLINE

VIZIO ALL-IN-ONE (24-INCH)

$700+

PROS

- Lovely display with good viewing angles
- Striking design
- Robust sound quality
- No crapware pre-installed

CONS

- Exceptionally flaky trackpad
- Uncomfortable keyboard
- Lackluster performance

BOTTOMLINE

Vizio's first desktop has an unforgettable look, but that modern design comes at the expense of both performance and comfort.

Four years ago,

A NEW SPIN ON AN OLD DESIGN

Dan Sorger set out to rethink how bicycles are made. With the help of a team of designers, engineers and medical professionals from institutions like MIT and Tufts, he created the Swift, a human-powered machine built to fit the individual needs of American city dwellers.

BY TERRENCE O'BRIEN

PHOTOGRAPHS BY KEN RICHARDSON

An understated neon sign in one of DBC's two tiny windows indicates it isn't just another bike shop.

MY DAY WITH DAN SORGER was winding down and the photographers were out joyriding on his bicycles when he beckoned me to look at something on his tiny, age-stained LCD monitor. Nestled in between a curling collection of Post-It notes was an anecdote about a wealthy Italian man which he began to read aloud, "Once upon a time, long ago ..." According to the story he had spent an exorbitant sum of money to modify his prized Alfa Romeo. As a result, his family tried to have him declared insane and wrest control of his fortune. As the trial got underway, the judge

Dan Sorger shows off a computer model of the Swift and explains the physics behind its geometry.

asked to see the vehicle in question and, once he set his eyes on the custom-crafted aluminum body, he dismissed the case, declaring, “The search for beauty is the most natural thing in man.” The tale is allegedly the origin of storied automobile designer Ugo Zagato, but it’s the judge who is the real star and it’s his words that struck a chord with Dan, the founder and owner of DBC City Bike Design.

While it might be hard to see that persistent quest for beauty at work in Sorger’s basement bike shop, there is a certain elegance to its austerity. Like the Swift, the cycle he designed with the aid of about a dozen engineers from MIT and Wentworth Institute of Technology, his relatively unadorned basement headquarters is simple, functional and strangely timeless. Its walls are white and mostly free of extraneous decoration. Just beyond his tattered wood desk, a vintage Miami cruiser hangs from one of his patent-pending pedal hooks — the perfectly rusted patina on the low-riding frame is the closest thing to art on the walls. The unassuming entrance on the corner of Pearl and Purchase Streets in Boston’s financial district, which he shares with a tailor, wasn’t the original home of DBC. Sorger started the company in 2002 in St. Augustine, Fla. Back then, it was called the Dutch Bicycle Company and, appropriately enough, it imported Dutch commuter bikes. The unabashedly political goal of the shop, which

The Swift minimizes road vibration through engineering and a careful selection of components, right down to the choice of a sprung saddle.

Dan Sorger proudly stands next to his creation on a repair stand in the DBC workshop.

he co-founded with his wife Maria in direct response to 9/11, was to reduce Americans' dependence on oil.

"I opened the paper and saw names I knew. Maybe they weren't my best friend or a family member or an ex-girlfriend, but I knew them," Sorger said.

He took it personally, as he puts it, but it's not all about stopping the flow of oil money — the man also has a green streak a mile wide.

There was a problem, though: European bikes were designed for European roads. They were not ideal for urban American commuting and, surprisingly enough (according to Sorger), neither were those designed here. Biking in the United States is treated primarily as a leisure activity, with 73 percent of cyclists telling the National Bicycle Dealers Association (NBDA) they ride for recreation. Only 10 percent reported commuting on their bikes in the same 2011 survey. Sorger doesn't mince words, calling most major bike manufacturers "toy companies," and looking at the numbers, he's obviously not far off. According to the NBDA, 70 percent of the bicycles sold in the country accounted for only 27 percent of the market value in 2011, with an average price of $84. What he needed was not a plaything, but a serious human-powered mode of transportation. The obvious next step, to him at least, was to create his own bike, one built exclusively for getting around the modern US city. He set about looking for engineers, designers and manufacturers nearby,

A vintage headlamp, along with a few other relics from cycling's past, sit in a glass case next to Sorger's desk.

An employee hand drills each Swift wheel and adds the spokes in DBC's back room.

but found that Florida simply couldn't provide the resources or the market he needed. So, the New York native headed north, beyond his childhood home, to the city of Boston in 2008.

It's no accident that DBC landed in Beantown. It's home to countless schools, with highly regarded engineering programs and serves as the metropolitan heart of bike-friendly New England. It didn't take long for Sorger to find co-conspirators and get to work after landing in Massachusetts. He put together a team of six engineers from Wentworth to help design a frame for men and another half dozen from MIT to tackle the women's bike. The two groups worked largely independently to avoid a common shortcut taken by many other manufacturers, which is to simply drop the top bar on a men's model and say it's for women. But, before the designers could get to work drafting a prototype, they had to figure out what exactly needed fixing.

Commuter bike design hasn't evolved much since the 1880s, at its most basic form. British engineer James Starley is, perhaps, most commonly associated with the iconic (and slightly ridiculous) Penny-farthing with its oversized front wheel, but the "safety bicycle," which his nephew developed the first commercially successful version of in 1885, is the blueprint for most modern bikes. Cycling has continued to be popular in Europe as a legitimate form of transportation ever since, but here in the States, it's something to

be done in your down time, often in the form of racing or mountain biking.

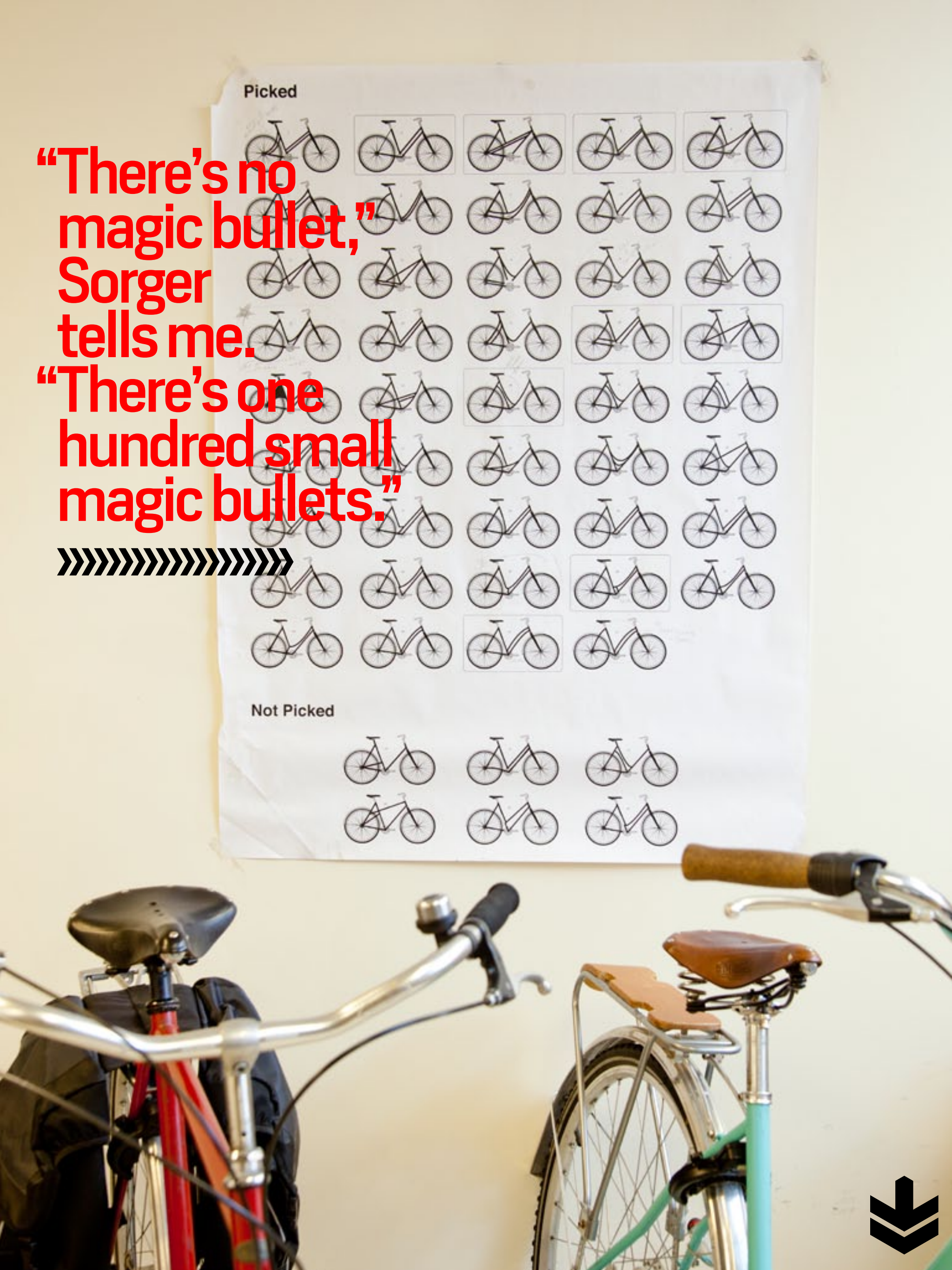
To find out what it is about their bikes that drives Americans to see them as fitness tools or recreational distractions, as opposed to modes of transportation, the teams blanketed Boston with questionnaires. Both avid and reluctant cyclists were interviewed to find out where current designs needed the most work. The results shocked even Sorger. A "laundry list" of complaints was analyzed and the decision was made to approach the various problems quantitatively. Each area of improvement was given a point value and each potential solution was scored appropriately. Some solutions introduced new problems or exacerbated existing ones, so trade-offs had to be made to find the proper balance. And balance, it turns out, was one of the key issues. Most bikes distribute a rider's weight evenly over both wheels, but this is neither ideal nor efficient. Resting too much weight on the upper body and forcing riders into a hunched position may be more aerodynamic, but it also puts undue strain on the human body. Increasing the weight placed over the front wheel also decreases stability, which is why it will wobble if you slam on the brakes (your body's momentum continues forward, shifting weight on to the handlebars). Sorger took a page from his days as a pilot and ap-

“We didn’t ‘design’ the bike, we tweaked it. We tweaked it a lot.”

plied a weight and balance equation to the design, shifting a larger percentage of the load toward the rear wheel, which improved both handling and stability dramatically.

For a year, the design phase pushed on as the teams tweaked angles, working to get the geometry just right. And “tweaked” is the word Sorger prefers to use. “We didn’t ‘design’ the bike, we tweaked it. We tweaked it a lot,” he insists, but still he uses the term that indicates a minimal break from tradition. Looking at the Swift, it doesn’t appear terribly different from most other bikes on the market. It has two wheels, a fork, a chain and the diamond-shaped frame that is the industry standard. But those subtle, almost invisible, visual differences are actually dramatically removed from what is considered “normal.” The “tweaks” were enough that the company had to abandon tools built with bicycle design in mind. “There’s nothing wrong with BikeCAD,” Sorger emphasizes, “it’s a great program.” But, it has its limitations and he says it simply wasn’t going to work for DBC’s purposes. Specifically, he says some of the angles couldn’t be handled by the narrowly focused software package. The team ended up settling on the far more robust and general purpose SolidWorks, a suite with a starting price about 10 times that of BikeCAD Pro, which retails for CAD$350.

One advantage gained from switching to a more fully featured design program was the ability to perform simulations and virtual stress tests. Since Sorger wants his bikes to be a mode of transport, durability and reliability were paramount. Toyota kept coming up in our conversations as an exemplification of his goal. The Japanese car company is famous for touting that 80 percent of its Corollas sold over the last two decades are still on the road — the Swift is designed with that sort of longevity in mind. To wit, the engineers opted for 4130 chrome alloy steel, an aircraft-grade metal. While aluminum may be more popular with many bike designers for its lighter weight (and the Swift is not exactly petite at around 34lbs.), DBC’s engineers put more value in the steel’s shock-absorbing power. Most aluminum alloys are much



"There's no magic bullet," Sorger tells me. "There's one hundred small magic bullets."

more rigid, which not only transfers more road vibrations to the rider, but also tends to crack easier under stress. The comparative flexibility of steel makes for a more comfortable ride and a vehicle that can sustain more wear and tear before coming apart at the welding seams.

What's shocking in talking to Sorger about the work that went into creating the roughly $2,700 Swift, is how simple some of the solutions he has adopted are. "It's basic physics," he shouts when discussing the issue of weight distribution. But it's not just high school physics that comes into play; it's also secondary school chemistry and math. For example, brass washers and other non-ferrous metals are placed between the chromoly frame and the stainless steel bolts to slow electrolysis. Wander into any eighth-grade science fair and you're likely to see an example of this destructive process at work — place two dissimilar metals in an electrolyte solution and one of the materials will slowly steal ions from the other, causing it to oxidize, become brittle and eventually break apart. Preventing this process using an iron-free, corrosion-resistant alloy barrier is particularly important in a city like Boston, where the air is damp and laden with salt water.

It's an odd dichotomy that so many Ivy League engineers and designers were required to develop what, from a distance, seem like incredibly simple solutions to problems that many feel plague bike design. "There's no magic bullet," Sorger tells me. "There's one hundred small magic bullets." And many of those tiny changes, once you've had them explained to you, seem like they should be common sense.

Unlike a bike from a larger manufacturer, each Swift is custom built. You are fitted for the frame like it was a fine bespoke suit. Your height, inseam and weight are all taken into account — even the possibility that you'll be toting around a toddler in a child seat on the rear rack is considered in the equation that decides the final shape of the frame. Those measurements are then fired off to legendary bike builder Ted Wojcik, who has been hand-welding and bending award-winning frames for over 25 years. Of course, the big boys like Trek and Giant can't be faulted here, the nature of mass production makes it impossible for them to finely tune a frame for each individual. But what makes Sorger's method stand out is the difference in how it approaches the problem of scaling to the human body: the Swift *scales*, where other bicycles may simply get taller without increasing the wheel base. To compensate, some manufacturers will even slightly alter the geometry of a commuter cycle, perhaps tilting the seat post at a different angle, but that could potentially lead to shorter riders being forced into a more hunched or horizontal position.

Sorger has plenty of competition in the custom bike market, some of it more affordable than his own offering. But those lower-priced models are gener-

ally "custom" in paint and detailing, not in sizing. *Truly* tailored frames are often fitted using complicated stationary bikes with adjustable components that require the assistance of a professional ... a professional that demands to be paid. Those frames run anywhere from $2,000 to $5,000, and that's before any of the essential components have been added. Some shops will "fit" you for a bike by taking basic measurements, such as your inseam, but they're generally only used to select a prefabricated frame with the correct height. DBC straddles a strange line somewhere between the "custom" shops geared towards the fashion-focused and the serious cycling dens populated by aspiring Tour de France racers.

Perhaps the most important element of any bicycle is the human one. They are, ultimately, a human-powered mode of transport, and maximizing the efficiency of the engine (read: the rider) is the only way to turn biking from something people do for exercise, into a viable method for navigating a modern metropolis. (Obviously, sufficient infrastructure to enable safe and easy travel also helps, but thankfully Boston has that in spades.) Engineers and designers from top universities might have some idea how to reduce strain on the human body, but for real insight Sorger turned to doctors at Massachusetts General Hospital and sports medicine researchers at Tufts. The key problem that needed to be solved was that of fatigue. No one is going to want

The Swift, with extra consideration given to protecting the frame against the salty sea air in Boston.

to pedal to work if, at the end of a relatively short 4-mile ride, they're sweaty and exhausted. The medical brain trust encouraged Sorger to do two things: first reduce the amount of vibration transferred to the rider. The choice of steel was a good starting point, but by opting for a longer wheelbase, the team was able to smooth out the ride even more. The discussion also informed his choice of other components. Cork grips were selected for the handle bars and, in a compromise of his goal to minimize the use of polymers; he opted for plastic platforms over metal ones because of their shock-absorbing properties. Secondly, he was told to limit the amount of weight being supported by the arms. He had already shifted the center of gravity closer to the rear wheel, but it became imperative that the Swift encourage an upright posture.

By design, the Swift is relatively nondescript. There's no model number emblazoned on the top bar or a company badge on the front post. In fact, branding is all but non-existent. Probably the best way to identify one is by its lights. The finned taillight and streamlined headlight are also custom built. Sorger hired his friend and electrical engineer Dave Mroz to create a system that would be as reliable as the head and taillights of a car. That meant no batteries and rarely, if ever, changing bulbs. The second part of the equation was simple — opt for LEDs. The headlight even has a large reflector installed to maximize its brightness. Ditching batteries, however, meant putting a dynamo in the hub, and using the strength of the rider's legs to not only power the bike, but also the lights. So, they decided on an acceptable amount of resistance that could be added — almost none at all — then hooked up a multimeter and Sorger rode around Boston for weeks, measuring the amount of electricity he generated. Mroz took those numbers and figured out how to get the most out of the small amount of electrical current produced. As a testament to the DIY mentality and focus on locally produced products, all the lighting assemblies are built right in the DBC basement shop. In fact, while I was standing around pelting Sorger with questions, a box of parts from electronic component supplier Digikey was delivered.

While DBC isn't about to change course and suddenly start slapping large logos on their bikes, there is a desire to improve brand recognition. For that, Sorger is working with new teams of designers, also sourced from the many universities nearby, to create more immediately recognizable frames. The basic geometry might not change, but aesthetically the company is heading into far more adventurous territory. He sees the beauty in the simplicity of his creation, but the part of him that also obsesses over classic car design desperately yearns to create something truly iconic.

As we're wrapping up, in the midst of urgently encouraging me to take a black Swift out for a ride, Sorger gets a call. The details at the moment are very

DBC's Swift masks its sophistication with an inconspicuously retro style.

hush-hush, but the gist of the news he eagerly shares is the Swift will be getting electrified ... sort of. An unidentified company has just agreed to order at pair of frames from DBC as testbeds for a new electric bicycle it's developing. The highly configurable frames, or mules, are slightly longer than the standard design, have many more attachment points and might not look quite the same, but all the same design and engineering expertise will be present in the final form. Sorger's excitement about the project is clear. As he explains, power-assisted bikes are either great electric bikes or great pedal bikes, but rarely both. He's confident enough in his own product and has high hopes for the unique motor being developed by his collaborators. The final version may not sport DBC branding, but the quiet recognition of being chosen as the platform for this new project seems to be enough for him. D

Terrence is too complicated and multifaceted to be reduced to pithy one-liners. He's also kind of a jerk.

ESC

VISUALIZED

DISTRO
09.28.12

DARK ENERGY CAMERA

Our universe is rebelling against gravity and expanding at an accelerated rate, and scientists at Illinois' Fermilab believe that dark energy may be the culprit. Using the Dark Energy Camera and its 62 CCD image sensors, they're able to capture shots in the range of 570 megapixels each. These images will help them study the distribution of celestial bodies in space and dark energy's effect upon them.

PHOTOGRAPH: FERMILAB

JJ ABOUHOB

He's championed mobile video sharing, now VIDDY'S PRESIDENT is opening up about his distaste for reptilian footwear.

What gadget do you depend on most?
Sharpie Ultra Fine Point

Which do you look back upon most fondly?
NEC TurboExpress

Which company does the most to push the industry?
NASA

What is your operating system of choice?
OS X

What are your favorite gadget names?
Walkman, PlayStation, Game Boy

What are your least favorite?
Samsung Galaxy S II Epic 4G Touch

Which app do you depend on most?
Viddy!

What traits do you most deplore in a smartphone?
Portrait-mode video recording

Most despised technological advancement?
CROCS

Which are you most intolerant of?
Pixel burnout

When has your smartphone been of the most help?
Jury duty

What device do you covet most?
Leica M9

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

What does being connected mean to you?
Receptive to incoming signals

When are you least likely to reply to an email?
Monday through Sunday

When did you last disconnect?
Summer of 2010 D

Which do you most admire?
Retina display

What is your idea of the perfect device?
It doesn't exist!

What is your earliest gadget memory?
Casio calculators

What technological advancement do you most admire?
CERN LHC particle accelerator

Which do you most despise?
Crocs

What fault are you most tolerant of in a gadget?
Battery life

PANACHAI CHERDCHUCHEEP/SHUTTERSTOCK

The week that was in 140 characters or less.

Crazy Trains And Driverless Cars

DISTRO 09.28.12 | ESC | REHASHED

@paleofuture

i hacked my driverless car so now it just drives the streets at night alone, wondering where the time went; why we're here; how it will end

@donmelanson

Just a governor standing next to a guy with a wearable computer signing a bill approving driverless cars.

@saschasegan

Apple: iPhones Aren't Chipping, They're Just Shedding Their Skins To Become Beautiful Butterflies

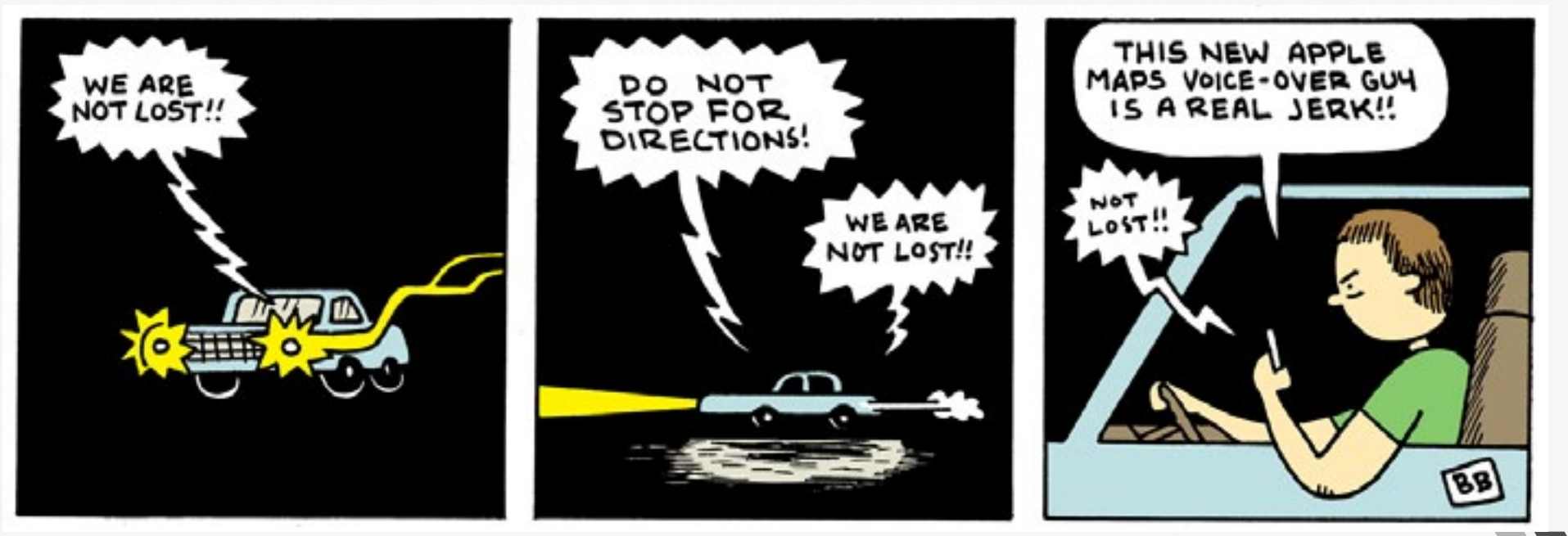
@JohnPaczkowski

Crazy Train would have been more apt. #bbjam

@bheater

Apparently Radioshack dumped its CEO. He probably should have opted for the three year protection plan.

THE STRIP | BY BOX BROWN



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