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WASTE

E-Waste: How the New iPad Adds to Electronic Garbage

By **BRYAN WALSH** | **@bryanrwalsh** | **March 8, 2012** | **12**

GETTY IMAGES

There was a major news event yesterday over at Apple HQ in Cupertino, California, which I know because my Twitter feed was filled alternately with people live-blogging the event ("retina display!") and mocking the live-blogging ("the screen self-cleans with children's tears!"). This is how we receive the news of a new iPad, which the good people of Apple are calling... iPad, confounding those who thought it would be called iPad 3 or iPad HD or anything at all to set it apart. We want the iPad—we have the iPad.

I'll leave it to TIME's highly capable technology writers to describe what actually makes the new iPad new. The early consensus seems to be that the third-generation iPad—which should go sale by the middle of the month—offers some interesting new updates, including an ultra-sharp screen, a much-improved camera and a faster processor. But it's less of a revolutionary jump than the iPhone 4S was over its predecessor—at least the new iPhone had a much-hyped digital assistant, even if she didn't quite turn out to be 100% reliable, especially for the Scottish. The new iPad is an update, the latest version—but not a whole new piece of hardware.

Hence the name: just iPad. Which, as Mat Honan of Gizmodo wrote, makes sense. The more updates to the iPad that Apple rolled out over the years, the odder numbering each might have appeared. By iPad 15, it would have looked like a bad horror movie series—though Robin Sloan's tweets from the future would seem to indicate that iPad 8 was totally awesome. We can expect Apple to roll out slightly updated iPads every year or so, the way Toyota might follow the 2012 Camry with the 2013 model year Camry. Those with the inclination and their spare cash will come to think of tablets—like our new smartphones—as eminently replaceable objects, good for a year or maybe more before being discarded for the next hot thing. (That could be a large group—4 million people bought the supposedly disappointing iPhone 4S on its first weekend, and the device has been setting sales records.) The lifespan of a device gets shorter and shorter.

And that could mean more electronic devices end up in the garbage—which can be bad for the environment and bad for human health.

(**PHOTOS:** China's Electronic Waste Village)

E-waste is electronic waste—the afterlife of your phones, laptops, TVs and other consumer electronic devices once they've

gotten tossed in the trash. We produce a lot of it: 6 million tons in 2010. Improperly disposed of, the lead, mercury and other toxic materials inside e-waste can leak from landfills, threatening groundwater supplies and generally causing a mess. Worse is what happens if that e-waste is exported overseas to poor countries like Ghana or Nigeria. It's common for traders to take old computers and phones from the developed world, sell the second-hand products that are still in working condition, and send the rest of the scrap to slums. There—in places like the Agbloboshie market in the Ghanaian capital of Accra—the poor take apart the devices, burning plastic wires to get at the copper inside. The result looks bad, and feels worse, as Jack Caravanos of the Blacksmith Institute—an NGO that takes on neglected industrial pollution—described in a blog post:

> Everywhere you look you see pieces of circuit boards, televisions, refrigerators, irons, etc. The toxic chemicals released are spread throughout the area when it rains and of course spread to the homes each evening. What especially troubled me was the path of the toxic smoke that floats right into the food market. So whatever doesn't get into your lungs can now settle onto the food supply of Accra. Agbogbloshie is a large thriving recyclers market but has major environmental health problems.

And the amount of e-waste headed to places like Accra is only likely to increase in the years to come. Pike Research estimates that by 2025, global e-waste will increase to 25 million tons. And a lot of that will be driven by Apple and its product lines.

(**MORE:** E-Waste Not)

It isn't exactly Apple's fault. Because the company's products are still in such high demand, you're unlikely to find many old iPads or iPhones in landfills—they're far too valuable on the resale market. (If you want to sell your old iPad 2 *right now*, the re-commerce company Gazelle will give you $165 for it, no questions asked.) And Apple—after some prodding by environmentalists—has a relatively liberal reuse and recycling program: the company will pay you in gift certificates for any old Apple item that still has monetary value, and will recycle free of charge any product that is no longer usable.

But through the introduction of the incredibly popular iPhone and the iPad, Apple has single-handedly expanded the consumer electronics market. As recently as five years ago, smartphones were for a relatively small Blackberry and Palm Pilot business contingent, while the rest of us took the handsets offered by the telecoms and used them for years. (Or until we lost them.) Then the iPhone rolls around in 2007 and changes everything. The smartphone goes mainstream, with other electronics companies quickly following—see the proliferation of Android phones. The period between upgrades gets shorter and shorter, churning out new devices that replace old ones well before their natural lifespan is up. Suddenly that two-year-long mobile contract doesn't seem long enough, and the number of old phones in your desk drawer keep adding up.

And then there's the iPad, which essentially invented a new consumer electronics category: the tablet. Some of the initial confusion about the iPad centered on whether it was meant to replace the laptop or the desktop computer, but it became clear that wasn't really the case. (Even if some commentators see the new iPad as gunning for the PC market.) The iPad was meant to be an additional device, fitting into the Apple ecosystem along with your iPhone and your MacBook Air. And like the iPhone, it was meant to be upgraded relatively frequently—Apple has released new iPads like clockwork every March. Just like that, a new e-waste stream was born.

(**MORE:** Four Ways to Deal With Your Old Electronics)

It's clear that Apple devices—and most consumer electronics products these days—are not meant to be used for a long period of time. The fact that the iPhone battery is not replaceable is proof enough of that. Though there's a healthy secondary market for the devices, how long will it be before they too become once-expensive bricks? After all, the old computers being dismantled by hand in the Agbloboshie were once top of the line as well. The more electronics we consume, the more products that will end up in landfill some day.

Look, e-waste isn't going to stop Apple, and as the owner of an iPhone 4S, I have no interest in seeing that happen. This is just a reminder that our acceleration addiction to consumer electronics does have a cost—albeit one we can mitigate with the right steps. The recycling programs offered by companies like Apple are a good first step, but a better one would be free pickup for devices—a service offered by a growing number of businesses. If you'd rather sell your old devices on the secondary market—and that's as good as recycling—there's no shortage of ways to do so. (You can even donate them if you're feeling particularly guilty.) Just don't toss it in the trash, as 130 million phones are tossed each year. While many activists have called for a tougher ban of e-waste export to poor countries, a better idea would be to provide equipment and facilities in places like Accra that allow the poor to recycle electronics—which can be a valuable industry—without harming their health or the environment. "This can be a valuable economic opportunity for people," says Meredith Block, the executive director of the Blacksmith Institute. "What we need to do is mitigate those dangers."

E-waste isn't going away—not with iPads coming out every calendar year and Steve Jobs's successors dreaming up new devices we don't yet know we want. But Block is right—we can mitigate the worst of it, if we care.

MORE: The E-Waste Blight Grows More Dangerous Than Ever

Bryan Walsh is a senior writer at TIME. *Find him on Twitter at @bryanrwalsh. You can also continue the discussion*

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