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We Need the Right to Repair Our Gadgets

People can fight back against planned obsolescence by fixing the tech we already own, but the consumer electronics industry isn't making it easy



By **GEOFFREY A. FOWLER**

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We don't have to keep buying new gadgets. In fact, we should insist on the right to keep old ones running.

Who hasn't experienced a situation like this? Halfway through a classic Jack Lemmon DVD, my colleague Shira's 40-inch TV conked out. Nothing showed up on the screen when she pressed the power button. The TV just hiccupped, going, "Clip-clop. Clip-clop."

This was a great excuse to dump her old Samsung and buy a shiny new TV, right? But before heading to Best Buy, Shira gave me a call hoping for a less expensive option, not to mention one that's better for the environment.

We ended up with a project that changed my view on our shop-till-you-drop gadget culture. We can fix more technology than we realize, but the electronics industry doesn't want us to know that. In many ways, it's obstructing us.

There's a fight brewing between giant tech companies and tinkerers that could impact how we repair gadgets or choose the shop where we get it done by a pro. At issue: Who owns the knowledge required to take apart and repair TVs, phones and other electronics?

Manufacturers stop us by controlling repair plans and limiting access to parts. Some even employ digital software locks to keep us from making changes or repairs. This may

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- How and Why to Sell Your Old iPhone for Cold Cash (<http://www.wsj.com/articles/the-best-way-to-sell-your-old-iphone-to-pay-for-that-new-one-1441739931>)

always be planned obsolescence, but it's certainly intentional obfuscation.

Thankfully, the Internet is making it harder for them to get away with it. My first stop with Shira's TV, a 2008 model, was Samsung itself. On its website, I registered the TV and described what was broken.

With a little googling of the TV model, I found our problem wasn't unique: Samsung was taken to court about this exact issue, caused by a busted component called a capacitor. Samsung settled in 2012 by agreeing to extend warranties for 18 months on certain TVs, including this one. It also kept repairing the problem at no cost for a while after.

But when a Samsung support rep called back, she said they'd no longer fix the problem free. She passed me to an authorized Samsung repair shop in my area. They said they'd charge \$90 for an estimate, and at least \$125 plus parts for a repair. Buying a similar-size Samsung TV today costs \$380. Why wouldn't Shira just buy a new TV? She felt guilty. Even recycled e-waste can end up in toxic dumps in the developing world.

Enter Plan B: I found a ton of people talking online about this TV's broken capacitors. There were even a few folks selling DIY repair kits. The parts cost...wait for it...\$12.

I have no experience repairing TVs beyond knowing you must unplug them to avoid shocks. I thought soldering was difficult to spell, much less do. But what did we have to lose with a TV that was already broken? I decided to open Geoff's Tech Repair.

I splurged on a \$20 deluxe repair kit, sold on eBay, that included capacitors, a soldering iron and something called a solder sucker. Its makers also sent me a link to a YouTube video where a man teaches you how to solder capacitors into a TV. To prove how easy it is, he's helped by a toddler. The video has been watched over 675,000 times.

All of which raises an important question: Why didn't Samsung just point me to instructions or provide the needed parts? Samsung's website and phone support don't have repair guides or really any information to help me negotiate the situation. I was on my own.

Samsung wants people to go to "qualified" technicians. In a statement, a spokesman

said, “The technology found in TVs today is more sophisticated than ever before and often requires a level of expertise and technical proficiency to repair most of these high-quality products.”

I’ve heard this argument echoed elsewhere in the electronics industry. But the view is not unanimous: Dell, for one, makes repair guides and parts widely available on its site. So do H-P and Lenovo. Are we to believe that repairing a TV is so much more complicated than poking at a laptop?

Samsung says there are “no fees to Samsung” associated with becoming an authorized repair shop, and it makes parts available to independent shops. Samsung declined to say why it doesn’t make repair manuals available.

Samsung isn’t the only, or even the worst, offender. Some companies treat repair guides

Bringing a Dead TV Back to Life

WSJ Personal Tech columnist Geoffrey A. Fowler learned soldering on the fly, and successfully repaired his colleague's TV in four basic steps.



and schematics as intellectual property, and send takedown notices to people who post them online. Sometimes limitations are built into the design: You can’t separate Apple’s newest MacBook battery from its case, meaning only an Apple-authorized repair center can swap out a battery. (I hope you live near one!)

“Manufacturers are hiding behind copyright as a form of planned obsolescence,” says Kyle Wiens, co-founder of the website iFixit.com and an advocate for the right to repair electronics and reduce e-waste. His site includes helpful community-generated repair guides for products, and sells some replacement parts.

These manufacturers’ policies harm tinkerers, as well as mom-and-pop repair shops that don’t pay for an authorized designation. Being cut off from information is

one reason independent repair shops aren’t as common as they were in decades past, Mr. Wiens says, even though a Consumer Reports study has found they generally offer better service at lower prices.

HELPING HANDS

Got a broken, out-of-warranty gadget? It might be more repairable than you think. You could Google it. Chances are, someone else has identified it and even posted a YouTube video about how to fix it. But your surest bet is to visit one of these key sites:

- **iFixit.com:** (<https://www.ifixit.com/>) Detailed repair instructions and repair parts for 4,000 devices, particularly phones, tablets, computers and cameras.
- **Repairclinic.com:** (<http://www.repairclinic.com/>) Focused on appliances and power tools, sells replacement parts and offers more than 2,300 free repair videos.
- **Fixya.com** (<http://www.fixya.com/>) : A free, wide-ranging billboard for asking and answering questions about over 19 million products.
- **iCracked.com:** (<https://www.icracked.com/>) Independent repair network for Apple and Samsung phones and tablets that sends technicians and sells DIY screen replacement kits.
- **Repaircafe.org:** (<http://repaircafe.org/>) Lists volunteer-driven events world-wide where people with technical experience help repair devices at no cost.

Mr. Wiens is also part of a coalition pushing legislation in Minnesota, Massachusetts and New York that would require “digital electronic product” makers to provide owners and independent repair businesses with service information, security updates and replacement parts. This would, he says, increase choices and lower prices.



At a Repair Cafe in Palo Alto, Calif., volunteers, including the woman on the right, helped people fix all kinds of devices.

PHOTO: GEOFFREY FOWLER/THE WALL STREET JOURNAL

The Consumer Electronics Association, an industry trade group, doesn't like the electronics right-to-repair legislation. Among concerns listed in a white paper it shared with me were the safety and quality of consumer-repaired electronics. It also said some

of this information “would be proprietary” and its disclosure could “inadvertently undermine a manufacturer’s competitive advantage.”

The notion that limiting repairs is planned obsolescence is an “urban myth,” says Walter Alcorn, the CEA’s vice president of environmental affairs and industry sustainability. He says his organization is committed to ongoing discussions with the repair community.

For now, at least we have the Internet.

There are also groups that home-brew repair instructions and advice in person, like a Repair Cafe I attended last week in Palo Alto, Calif. Over a four-hour session, a group of 40 volunteers served more than 200 people looking to repair everything from lawn mowers to TVs. They say they managed to repair two-thirds of what they saw, all free. The environmental impact of keeping all that stuff out of landfills is notable, as is the savings on the budgets of the patrons, many of whom were elderly.

Back in Geoff’s Tech Repair shop, I’m happy to report the fix on Shira’s TV took under two hours. First, I removed the many screws that attached the back of the TV, revealing the power supply. I took that out and spotted the busted capacitors. Soldering new capacitors requires a very hot probe, so I enlisted help from a colleague who’s an experienced tinkerer. But it honestly wasn’t any harder than using a glue gun.

When I was ready to plug the reassembled TV back in, my curious colleagues kept their distance—no one believed a TV was the kind of thing you could fix yourself. But when it turned on immediately, wild applause erupted.

The lesson: Repairing stuff isn’t as complicated as manufacturers want you to think. Geoff’s Tech Repair may be closed for now, but skilled gadget owners and independent repair pros deserve access to the information they need to do the best job they can.

Shira, very pleased with her like-new TV, tells me she’s going to rent “The Fortune Cookie” again to see how it all ended.

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