



Appliance Companies Are Lobbying to Protect Their DRM-Fueled Repair Monopolies

Jason Koebler

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Three letters obtained by Motherboard show that Dyson, LG, and Wahl are fighting right-to-repair legislation.

The manufacturers of your appliances do not want you to be able to fix them yourself. Last week, at least three major appliance manufacturers—Dyson, LG, and Wahl—sent letters to Illinois lawmakers opposing “fair repair” legislation in that state.

The letters were written with the help of a trade group called the Association of Home Appliance Manufacturers (AHAM). All three letters are similar but include slightly different wording and examples in parts. The letters ask lawmakers to “withdraw” a bill that would protect and expand the ability for consumers and independent repair professionals to repair everything from iPhones to robot vacuums, electric shavers, toasters, and tractors. Here are links to the **Wahl, Dyson,** and **LG letters**.

The bill (**HB 4747**) would require electronics manufacturers to sell replacement parts and tools, to allow independent repair professionals and consumers to bypass software locks that are strictly put in place to prevent “unauthorized” repair, and would require manufacturers to make available the same repair diagnostic tools and diagrams to the general public that it makes available to authorized repair professionals. Similar legislation has **been proposed in 17 other states**, though Illinois has advanced it the furthest so far.

Companies such as Apple and **John Deere** have **fought vehemently** against such legislation in several states, but the letters, sent to bill sponsor David Harris and six other lawmakers and obtained by Motherboard, show that other companies are fighting against right to repair as well.

Just as smartphones, tractors, and laptops have become more difficult to repair thanks to software locks, proprietary tools and parts, and encrypted firmware available only to “authorized” repair professionals, so too have vacuums, refrigerators, toasters, and coffee makers, many of which have digital rights management (DRM) software that prevents the average consumer from performing basic repairs. LG sells a wide range of products including smartphones, refrigerators, and TVs; Dyson is best-known for selling vacuum cleaners; and Wahl sells hair clippers and electric shavers.

“It’s not like the old days where you can go in and change a pulley or belt in a washing machine,” John Taylor, senior vice president of government relations at LG, who wrote the company’s version of the letter, told me on the phone. “These are highly technical machines—you practically need an engineering degree to be able to service it, with the circuit boards and circuitry and software updates. That may be an overstatement, but a lot of them are technicians who have been trained through our program or vocational schools.”

The Dyson and LG letters suggest that opening their products up to third-party repair could put consumers in imminent danger from independent repair people who they posit could enter your home to fix an appliance and instead harm and hack you

Dyson declined to comment on the record and Wahl did not respond to a request for comment for this article.

Gay Gordon-Byrne, executive director for Repair.org, a coalition of independent repair companies that is pushing for this legislation, said that the only things holding back repair are artificial software locks and lack of access to parts, not technical know-how. Many independent repair people are highly skilled, and many consumers are able to perform repairs if they have guides available to them.

“If manufacturers make products that require a graduate engineer to repair, I’ll suggest they have a huge safety problem,” she said. “Either the product is safe to repair by their own techs, or its unsafe—in which case their own people will get hurt. Amazing lack of logic.”

Kyle Wiens, CEO of iFixit, which teaches people how to fix their own things and is a proponent of right to repair legislation, told me that “LG’s claim that their products are too sophisticated for consumers to repair is condescending and misinformed. Hundreds of thousands of LG’s customers use iFixit to repair their products every year with positive results.”

Over the past several years, Motherboard has reported extensively on the right to repair debate. The articles and documentaries we publish on the topic are generally popular, and I regularly get emails and tweets from people who say they see the slow creep of DRM from music, movies, and computer programs to smartphones, tractors, home appliances, and medical equipment to be a **fundamental shift in the concept of ownership**. I laid out this narrative to Kevin Messner, a top lobbyist for AHAM, who said that the argument may make sense for iPhones, but that “for home appliances, it’s not sympathetic at all.”

“The purpose and objective of the bill is a company wants to fix more iPhones,” he said. “It has nothing to do with any of the things you’ve been saying . . . in California they tried to couch it as e-waste issue. In Nebraska, it was tractors. In Illinois, it’s iPhones. It doesn’t make any sense.”

The truth is, it’s iPhones, it’s e-waste, it’s tractors—the issues at play cut across all electronics, big and small. Right to repair legislation is being pushed not by an iPhone repair company but by Gordon-Byrne’s organization, which represents hundreds of independent repair companies across sectors. The legislation is also supported by lobbying groups like the American Farm Bureau and hospital interests in several states and nonprofit groups like the Electronic Frontier Foundation and the US Public Interest Research Group.

The Repair Bogeyman

The letters rely in part on some flimsy arguments: The Dyson and LG letters, for instance, suggest that opening their products up to third-party repair could put consumers in imminent danger from independent repair people who they posit could enter your home to fix an appliance and instead harm and hack you.

“The nature of appliance repairs requires repair technicians to enter the homes of consumers,” the Dyson letter says under a heading called *Consumer Safety*. “Manufacturers who certify technicians may require extensive background checks as well as drug screening, as well as previously mentioned technical and safety training. If manufacturers are required to make their technical information public knowledge, they no longer have the ability to address whether the technicians who are entering the homes of consumers have completed the necessary technical, safety, and security checks.”

Taylor told me that “if someone slips through and doesn’t have a background check, it becomes a big issue. I don’t think everyone has a handyman [they trust] next door.”

Wahl—which sells hair clippers and shavers—suggests that a botched repair could burn your house down: “When product repairs are not performed correctly, they can cause property damage by fires, as you have seen from laptops and hover boards in the news.”

Gordon-Byrne said that companies “happily claim” that only their authorized employees are safe to let into your home.

“Despite you having decided whom to invite and had the opportunity to vet their qualifications through recommendations, ratings websites, and the [Better Business Bureau],” she added. “By their logic, appliance repair techs are roaming the streets knocking on doors like driveway sealing companies.”

I told AHAM’s Messner that I did not think the manufacturers’ concerns were credible. It seems farfetched that making appliance diagnostic information available to the general public would somehow lead to an increase in sham repair people robbing houses and harming people.

“There are true safety issues—who knows who’s coming into someone’s home,” Messner said. “Not all repairmen are disreputable by any means but there are examples and true stories where you might have a mom with her kid at home and she goes on the internet to find a washing

machine repairman and they take a few hundred dollars cash and they don't leave the lid locked on during the spin cycle," which can be dangerous, he added.

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AHAM then sent me two articles—one in which a woman **called the wrong number** for an actual repair company and was swindled out of \$420 by random people, and another from **2013 published on a site called Ezine Articles** in which a competent repair person fixed a washing machine repaired by someone who messed something up without incident. It's worth emphasizing that a small number of isolated and misrepresented incidents are being used to kill legislation that has the potential to make repair safer for everyone—fixing an appliance with a repair guide and diagnostic information is inherently safer than poking and prodding around devices blind: "This legislation will improve consumer safety by providing owners with the same safe procedures for repairing products that authorized service technicians are using," Wiens said.

AHAM's Messner also stressed that an improperly repaired appliance could cause damage to a home if it were to malfunction.

Harris, the bill's sponsor, told me in a phone call that opposition from companies has ramped up significantly since the committee moved it forward. He said he believes that the arguments' "validity is weak."

"The arguments can always be carried to the ridiculous," he said. "John Deere called me up and said, 'What happens if a father makes an adjustment to a lawnmower and his young son cuts the grass and the blade comes off and cuts off his young son's foot?' I assume in the extreme it could happen, but I imagine the odds of that happening would be greater than the odds of being struck by lightning three times."

The letters also talk about protecting the investments that manufacturers put into hiring "authorized" service professionals, who pay a fee to the company in exchange for access to training and tools. When I asked LG's Taylor to respond to the common argument that manufacturers are monopolizing repair with these programs and by locking down access to parts, he disagreed with that characterization.

"I'd hardly say it's a monopoly. There are literally thousands if not tens of thousands of authorized servicers for LG," he said. "For those who want to get into the service business, we'd encourage them to participate with the major brands and become part of the process."

This idea—that repair professionals should work for big companies or not work at all—discounts the idea that there are many reasons why someone would want to start their own independent repair business or work for companies that are unaffiliated with a major corporation. It also discounts the fact that many people have the know-how and desire to repair their own products: "LG's proprietary diagnostic tools are not available to consumers like me that love our LG products but prefer to repair them ourselves," Wiens said.

The Internet of Broken Things You Can't Repair

The companies also say that the bill could weaken cybersecurity.

It's worth noting, however, that companies in all sectors have not been specific about how the bill would weaken the security of devices; LG argues that because many of their products are Wi-Fi connected, that allowing consumers and independent repair professionals access to them "may give unauthorized personnel access to consumer's private Wi-Fi network ... simply put, HB 4747 and cybersecurity are like oil and water." Other companies have said that allowing access to proprietary firmware and diagnostic tools will allow people to reverse-engineer devices.

Serious security experts disagree with the notion that fair repair bills will somehow make us less secure, however. Digital rights group the Electronic Frontier Foundation, for example, supports right to repair legislation and also has a long history of vouching for default encryption and other cybersecurity protections. Cory Doctorow, a special advisor to the EFF, told me that companies are using right to repair as a scapegoat for generally bad security practices across the internet-connected appliances sector.

"The theory that only original manufacturers are qualified to secure their products is wrong on its face. The past decade has seen a steadily mounting tempo of ever-more-ghastly defects in the software in devices by all kinds of manufacturers—anonymous Chinese white-label firms, Fortune 100s, and everyone in between—with the firms flubbing their responses to greater or lesser extent," Doctorow said. "Third-party patches, repair, service, and upgrades are critical to the security process—they provide immediate relief for consumers who are at risk from security defects, and discipline firms so they provide timely, comprehensive security updates."

Julian Sanchez, a senior fellow at the Cato Institute specializing in technology and security, told me "you don't need me to tell you security through obscurity is bad security."

Finally, it's worth mentioning that each letter includes a section telling lawmakers that passing the bill would make it harder for them to honor their manufacturer's warranties: "Most manufacturers often explicitly state that the warranty on the product is void in case of defects or damage caused by the use of unauthorized parts or service. As such, this bill has the potential to harm consumers rather than providing benefits," the LG letter says. "It would be extremely difficult for manufacturers to honor product warranties in circumstances in which independent third-party servicers are granted full access to manufacturer's software, parts and products because they could damage a product with an improper part or repair."

"When a big guy comes in and says they are going to void the warranty and it's a terrible bill, there's a lot of vested interest there that legislators are trying to respond to"

Though manufacturers are of course not required to fix damage that **third parties did to a consumer's appliances**, the Federal Trade Commission said last week that it is a violation of the Magnusson-Moss Warranty Act for manufacturers to **condition warranty service on the use of a manufacturer's repair services and parts**. If you used a third-party water filter on your LG refrigerator, the company couldn't prevent you from making a warranty claim on a broken crisper drawer. Because "warranty void if removed" stickers have conditioned us to think that

merely opening our things voids the warranty, Harris worries that some of this language is misleading.

“Their argument is on soft legal ground—they don’t have solid ground on which to stand,” he said. “The difficulty is most legislators at the state level aren’t familiar with that level of detail. When a big guy comes in and says they are going to void the warranty and it’s a terrible bill, there’s a lot of vested interest there that legislators are trying to respond to.”

There is a real debate to be had about the specifics of what any eventual law should contain. Many traditional technology companies, such as Apple, Samsung, and Google, have not substantively discussed their qualms with the legislation in public except behind the veil of their trade organizations. John Deere and agricultural manufacturers have generally decided they don’t want the legislation but earlier this year made minor concessions to farmers that they hope will prevent legislation from being passed. With these letters, we’ve seen more specific arguments from appliance manufacturers, but unfortunately they seem largely focused on preserving the status quo.

"This isn't just fixing products back in the 1960s and 1970s anymore," Messner said. "These are advanced products and it's not the same as it was. I used to be like that too. I used to fix everything. It's dangerous now."

That argument doesn't hold water according to Wiens, whose company has step-by-step repair guides for more than 10,000 mostly modern devices.

"These cookie-cutter reactions from companies who are raking in profits from repair monopolies are laughable," he said.