

Western University

Scholarship@Western

---

2023 Undergraduate Awards

The Undergraduate Awards

---

2023

## The Apple Doesn't Fall Far from the Tree: An Apple Inc. Right to Repair Case Study

Jumana Labib

Follow this and additional works at: [https://ir.lib.uwo.ca/undergradawards\\_2023](https://ir.lib.uwo.ca/undergradawards_2023)

---

The Apple Doesn't Fall Far from the Tree: An Apple Inc. Right to Repair Case Study

Jumana Labib

Supervised by Dr. Alissa Centivany

Faculty of Information and Media Studies (FIMS), Western University

16 April 2023

## **ABSTRACT**

The only parties that stand to benefit financially from obstructing repair and touting replacement are the oligopolies dominating the market, although they will often state otherwise. Apple Inc., which has consistently made this claim, is one of the most notorious anti-repair corporations. Along with its corporate counterparts, Apple has engineered a hostile consumer landscape that is highly structured and policed, with no autonomy for the consumer, or perhaps simply the illusion of autonomy. This paper aims to demonstrate the importance of repair and the Right to Repair (R2R) movement, using Apple as a case study to exhibit Original Equipment Manufacturers' (OEMs) efforts to obstruct repair. It begins with a brief history of humanity's gradual loss of repair skills and knowledge, and highlights the movement's importance in reclaiming repair. These losses are positioned as the products of sociologist Hartmut Rosa's 'social acceleration' theory, concomitant with OEMs' anti-repair strategies. Finally, it dissects Apple's role in slowing the movement through its use of manipulative business practices. In addition to demonstrating the hold that OEMs have on consumers and the market, and the importance of repair, it is hoped that this paper will fill a gap in R2R research, as the movement's nascency means that there is scant academic research published on the subject despite its frequent news coverage.

## **INTRODUCTION**

The only parties that stand to benefit financially from obstructing repair and touting replacement are the oligopolies dominating the market, although they will often state otherwise. When questioned over potential monopolistic, anticompetitive practices by the House Judicial Committee in November 2019, Apple's Chief Compliance Officer and Vice President of Corporate Law, Kyle Andeer, claimed that the costs of providing repair services have exceeded the revenue

made from repairs since 2009, meaning that, at the time of the statement, Apple had not profited from repair in 12 years (Holmes, 2019; *Questions for the record*, 2019). If this were the case, Apple – among thousands of other ‘Big Tech’ corporations – would not employ manipulative, profit-oriented tactics, like spewing repair disinformation or incorporating ‘death dates’ into its products, to ensure hegemony over the market and continue generating revenue. Such strategies have been especially useful to corporations like Apple as the burgeoning Right to Repair (R2R) movement – a social movement hinged upon our ability to reclaim and fix our devices – has been gaining traction (Graziano & Trogal, 2019; Perzanowski, 2021). This paper aims to demonstrate the importance of repair and the Right to Repair movement, using Apple as a case study to exhibit Original Equipment Manufacturers’ (OEMs) efforts to obstruct repair. It begins with a brief history of humanity’s gradual loss of repair skills and knowledge, and highlights the movement’s importance in reclaiming repair. These losses are positioned as the products of sociologist Hartmut Rosa’s ‘social acceleration’ theory, concomitant with OEMs’ anti-repair strategies. Finally, it dissects Apple’s role in slowing the movement through its use of manipulative business practices. In addition to demonstrating the hold that OEMs have on consumers and the market, and the importance of repair, it is hoped that this paper will fill a gap in R2R research, as the movement’s nascency means that there is scant academic research published on the subject despite its frequent news coverage.

### **A BRIEF HISTORY OF THE LOSS OF REPAIR KNOWLEDGE**

Repair is an ancient practice that has been used throughout human history. Given that nothing is perfect and that everything eventually breaks, repair, maintenance, and refurbishment are only natural processes. Over the centuries, however, we in the ‘Global North’, especially, have slowly and almost imperceptibly lost most of our repair skills and knowledge. Broadly, it can be

said that this loss is simultaneously the inadvertent consequence of social acceleration, and the deliberate consequence of manipulative tactics used by OEMs seeking to maximize profits (Perzanowski, 2021; Rosa, 2013). Social acceleration refers to the intensification of modern life with regards to technological, social, personal, and epistemic changes (Rosa, 2013). Specifically, three forms of acceleration combine to impact modernity's temporal flow: technological acceleration, the acceleration of social change, and the acceleration of the pace of life, all of which have been expedited by capitalism (Perzanowski, 2021; Rosa, 2013). This overwhelming structural acceleration and growing social and technological complexity cause us to be – to use Marxist terms – alienated from our products, which eventually makes us view them as perishable (Mitchell, 2018; Perzanowski, 2021). This alienation and new 'broken' worldview, in turn, affect and increase distribution and consumption habits (Jackson, 2014; Perzanowski, 2021; Rosa, 2013).

Repair was artful, valued, and ambitious, from the Japanese art of *kintsugi* to Pompeiian residents pouring molten iron in street holes. Sometimes, it was specialized, as in the Middle Ages when engineering emerged as a trade. Eventually, the eighteenth century begat industrialization, mechanization, mass production, standardization, and a consumer society, which have only intensified today and have fueled a global 'throwaway culture' wherein people discard fully functional, practically new items due to having been conditioned to replace their goods for the next 'big thing' constantly. The more sped up, ephemeral nature of society (jobs, relationships, and more) has come to affect our objects and our attachment to them, our practices, our knowledge, and our skills – in short, the way we view and experience the world has changed (Mitchell, 2018; Perzanowski, 2021; Rosa, 2013). Mechanization and mass production effectuated speed and efficiency in production, but consequently decreased the quality of our things. Technology has become more sophisticated and specialized, but our objects have become standardized; they are

generally cheaper and more identical. They lost their craft; most products bought from larger companies are no longer truly being made with care and attention to detail (Perzanowski, 2021).

With this increase in standardization and decrease in quality and price, though, came an upsurge in the replacement of items. In this reshaped consumer landscape, it became easier to replace objects, as one could effortlessly find another indistinguishable, equally cheap object. This ease of replacement diminished the need for repair, a skill which has been monopolized by Big Tech and other OEMs, and which is virtually a lost art today. It is the exact impulse behind planned obsolescence, the inbuilt 'death dating' of objects, which could only have come about in a quickened society that views time as money. Planned obsolescence was invented in the 1920s by Alfred Sloan, General Motors' (GM) Chief Executive Officer. He successfully used planned obsolescence to get around the American motor market, which was saturated by Ford cars at the time. GM fabricated demand and desire by releasing new models with enticing perks such as new colors and upgraded engines every year, sometimes barely even tweaking the car yet presenting it as the 'next best thing'. Similarly, Apple has released at least one new iPhone generation every year since 2007, often with mere incremental tweaks (Buck, 2017; Mitchell, 2018; Perzanowski, 2021; Rosa, 2013). This concept, a joy to manufacturers and a pain to consumers, is still being used today, often seen in the form of technological obsolescence, defined by Aaron Perzanowski as "the process by which one solution to a problem is displaced by a new generation of tools" (2021, p. 58). Planned and technological obsolescence can be credited as the primary reasons why North Americans and Europeans replace their phones every two years on average, an unparalleled speed of replacement in a world where people used to use and love their possessions to death (Buck, 2017; Perzanowski, 2021; Rosa, 2013).

As a result of technology's growing intricacy, then, repair has become more difficult for the average person, in addition to the obvious: our things are no longer made to last, and must be replaced by working products which will also eventually die on us in a few months to years. However, planned obsolescence now most commonly takes the form of intrinsically low product durability, a deliberate, capitalist tactic used by OEMs to ensure the replacement of products, and maximize profits by extension. Such encroaching methods have taken increasingly antagonistic forms in recent decades, in nearly unnoticeable ways due to them happening at such rapid rates (Perzanowski, 2021; Rosa, 2013). They have led to a decrease in, and often the complete loss of, repair knowledge and skills, and even the actual option of repair. This lack or loss is frequently taken for granted as newer generations grow up in a world where repair has ceased to be a real option. This loss, however, is evidently deliberate; repair knowledge was taken from us decades ago by manufacturers using profit-oriented tactics that inhibit repair and promote replacement. Adding more obstacles to repair may be fruitful for corporations, but the lack of consumer autonomy has become a problem, in economic, sociocultural, psychological, and environmental terms (Perzanowski, 2021; Rosa, 2013). This is where the Right to Repair (R2R) movement comes in.

### **THE RIGHT TO REPAIR: DEFINITION, SIGNIFICANCE, OBSTACLES**

The Right to Repair movement struggles for the legal right and ability to fix, modify, and tinker freely with devices that are purportedly private property. The movement's goals are to reclaim full command over consumers' technological goods – this includes phones, computers, agricultural equipment like tractors, medical equipment like ventilators, appliances such as refrigerators or washing machines, and many more – and to reinstate the repair industry to its former state wherein repair was accessible and empowering to all buyers and consumers regardless

of their economic, social, and cultural backgrounds, and market activity was healthy and non-oligopolistic. These objectives, in turn, would further manifest in the diminished production, pollution, and presence of electronic waste (e-waste) due to the extension of product lifespans (Centivany, 2021; Forti et al., 2020; Perzanowski, 2021). Broadly, then, it aspires to reinstate these rights and the control over electronic devices into the hands of consumers and independent repair shops, in order to alleviate the economic, sociocultural, psychological, and environmental repercussions that have resulted from social acceleration and the capitalist, avaricious, repair-obstructing efforts made by OEMs (Perzanowski, 2021).

The importance of repair lies in those repercussions. Firstly, buying new as opposed to repairing is expensive, and deliberately so. Periodically replacing working or somewhat damaged products is not a fiscally viable option for lower income communities and communities of color. Repair is not only more convenient when permitted, but also more cost-effective (Arends, 2018; DeBellis & Proctor, 2021; Federal Trade Commission, 2021). In a 2021 report, the United States' Public Interest Research Group (U.S. PIRG) discovered that consistently repairing products could save Americans 40 billion USD annually, which amounts to approximately 330 USD annually per family (DeBellis & Proctor, 2021). No recent data is available on worldwide savings regarding repair, but this number could be indicative of larger global savings. Factoring in repair costs, smartphone costs, and usage patterns, the true cost of an iPhone over a lifetime is now well over 300,000 USD on average (Arends, 2018). These costs, intensified by monopolized repair, are egregious and unnecessary. Unfortunately, many companies go out of their way to restrict repair, completely contradicting Apple's statement about losing money on repair (Holmes, 2019; *Questions for the record*, 2019).

In addition to consumers losing money, preventing repair negatively affects independent repair shops' income. Considering that their revenue is based solely on repair, they evidently lose money when repair is inhibited. Many third-party repair shops are not granted access to replacement parts and manuals, narrowing the circle of customers to which they can cater and service. Since repair has become monopolized by OEMs, many consumers may not be aware of external repair options. Consequently, they may get their devices fixed by OEMs like Apple, Microsoft, Lenovo, and others, only to be charged steeper prices or be persuaded to buy entirely new devices, therefore losing money in the process. Despite these disadvantages, independent repair shops' lack of parts, manuals, or legal capacities to tweak or mend certain devices continue to drive consumers to OEMs and away from independent repair shops. Making the repair process as expensive, exasperating, and time-consuming as possible, as well as monopolizing the repair process, are four of the myriad ways that OEMs have negatively affected consumers' and workers' lives (Federal Trade Commission, 2021).

Repair fundamentally supports and strengthens local economies and workers, and enables resale markets. It encourages healthy competition and supports small and local businesses by allowing them to generate revenue and subsequently help local consumers for more reasonable prices, ultimately saving them money that would otherwise be unnecessarily spent on new products. Resale markets also place less burden on the environment and on people's incomes by extending products' lifespans through their reuse, keeping more products out of landfills and allowing those with lower incomes to participate and support their economy, while purchasing quality, fixable items that will last them several years or decades (DeBellis & Proctor, 2021; Federal Trade Commission, 2021; Labib, 2022).

Relatedly, fewer reasonably priced repair options, deficient recycling laws, and manipulative tactics pushed by large technological companies like Apple and Microsoft nudge consumers toward replacement rather than repair. These unsustainable initiatives and the overall loss of product longevity, in turn, have adverse environmental impacts, which consequently advance and exacerbate climate change and global warming. E-waste, now the world's fastest growing waste stream that is fueled by excessive consumption patterns in a throwaway culture, few repair options, and shorter product life cycles, is perhaps one of R2R's main environmental preoccupations. It accounts for 70% of the toxic waste in North American landfills, and poses global health and environmental risks due to containing more than 1000 toxic, hazardous substances and scarce or valuable materials. Proper R2R legislation could help curb e-waste's effects, since extending the life of products via repair, maintenance, and refurbishment could keep them out of landfills, streets, and bodies of water for longer (Federal Trade Commission, 2021; Forti et al., 2020; Graziano & Trogal, 2019; Labib, 2021; Proctor, 2022; World Health Organization, 2021).

Lastly, the loss of repair knowledge and skills has produced sociocultural shifts. The COVID-19 pandemic demonstrated the importance of repair in society, as various communities experienced mental and physical illnesses and issues as well as financial hardship, without access to adequate treatment or services. The lack of repair access, as well as increased financial instability engendered by the pandemic, became further stressors for previously vulnerable groups during an already difficult time. All over the world, those with pre-existing anxiety and depression issues, disabilities, and low incomes were most at risk for COVID and financial uncertainty, and suffered greatly as a result. Many students and working adults were left without working laptops and Wi-Fi, often while struggling to pay rent. Appliances that were supposed to be reliable broke

down, hospital patients' lives were endangered because of ventilator manufacturers withholding repair documentation, and thousands of disabled people's lives were threatened due to broken equipment. Several rounds of lockdown, businesses closing down or cutting back hours, manufacturers impeding repair, and rising unemployment rates left millions lacking the tools necessary to work and live. The pandemic ultimately proved that limited access to repair causes problems for everyone, but disproportionately affects the poor, the ill, and the disabled. It equally verified the fact that repair, reuse, and refurbishment can help meet shortfalls of all kinds, while saving money, time, and resources (Bierman et al., 2021; DeBellis & Proctor, 2021; Gault, 2020; Gault, 2021; Proctor, 2020).

Moreover, the recent revelations that there are currently over 1 billion active iPhones and 1.65 billion Apple devices, and that Apple has seen more 'upgraders' than ever before, point toward consumers' changing consumption patterns in a faster society – the preference for 'newness' – promoted by manufacturers inhibiting repair. In 2020, upgraders set an all-time record in China, demonstrating the propagation of a global throwaway culture which is further accompanied by environmental implications. Consumption patterns in high-income countries are worsening the growing pile of e-waste (Nellis, 2021; World Health Organization, 2021; Rosa, 2013). Repair also promotes lifelong learning, community, creativity, problem-solving, innovation, and enhances cognitive and motor skills. When repair is limited or controlled, these qualities are curtailed (Centivany, 2021; Perzanowski, 2021). By repairing, we connect to the past, and maintain eons of traditions.

These abundant and growing ramifications directly align with Dr. X of X University's proposed six categorical imperatives: the ways that repair has been and is being thwarted. These impediments include law (legal repair constraints implemented by lawmakers and manufacturers,

a common example being digital locks in the form of software codes), economic and business strategies (manufacturers impeding repair by making it as costly, maddening, and laborious as they can for consumers), design (product quality, durability, reparability, and longevity or lack thereof), material asymmetry (simulated scarcity engineered by manufacturers forbidding consumers and third-party technicians from accessing physical matters like tools, manuals, and parts required to fix and identify faults within their products), informational asymmetry (the intentional lack of information in the form of knowledge, manuals, and more made available to consumers and third-party technicians that would support them in undertaking repairs), and social impediments (i.e., having no repair knowledge). In short, these impediments are manipulative, anticompetitive, profit-generating practices utilized by OEMs (Centivany, 2021; Labib, 2022).

These sly, repair-inhibiting tactics or categorical imperatives are used to persuade consumers to replace their electronics regularly. They are effective; consumers often discard working or slightly scathed electronics in favor of newer devices. Some of these strategies include methods of planned obsolescence (deliberately reducing product batteries, phasing out older models yearly, designing newer products with shorter lifespans), spreading repair and R2R disinformation, overcharging for repair and touting replacement, privatizing repair and diagnostic manuals, not selling replacement parts and repair tools to the public, gluing and fusing electronic parts instead of making them removable, suing independent repair shops or consumers who try to repair devices themselves, rescinding warranties or pricing them exorbitantly, limiting the number of possible repairs, refusing repairs, purposely taking too much time to repair devices, and much more (Black, 2021; Centivany, 2021; Federal Trade Commission, 2021; Labib, 2021). Before, manufacturers had little say over what consumers did with their products once they were purchased. Evidently, the increasing inexperience with and lack of knowledge on repair has made

consumers easy targets for OEMs, who have collectively monopolized repair (Perzanowski, 2021). The past two decades have especially witnessed numerous challenges to the “[privatizing] nature of commercial production”. In fact, consumers are now deliberately “positioned as renters, trespassers, even criminals, within material culture”, and this has simply become normalized, as if it were the way that societies have always operated (Mitchell, 2018, p. 66). To the OEMs, though, it is simply business; the capitalist business model forgets and deprioritizes the human side once again. As Graziano and Trogal state, the unfortunate truth is that “[r]epair is not [currently] outside of dominant governing regimes and practices, but shaped by them” (2019, p. 204). R2R aims to reverse this newly normalized narrative, and rightfully place the power back into consumers’ hands. Like its Big Tech compatriots, however, who have long been in counterattack, Apple is especially adept at using these devious strategies against consumers and independent repair technicians (Perzanowski, 2021).

### **‘NAKED CAPITALISM’: APPLE’S ROLE IN R2R**

Apple, like many other Big Tech companies, has an “obsession with controlling the user experience”, because it has proven to – quite literally – pay off (Perzanowski, 2021, p. 5). Along with its corporate counterparts, Apple has engineered a hostile consumer landscape that is highly structured and policed, with no autonomy for the consumer, or perhaps simply the illusion of autonomy (Mitchell, 2018). It is no doubt that Apple is one of the biggest R2R offenders, given its hegemony on the technological world and its constant lobbying against R2R. With acceleration at their side, large corporations like Apple use society’s general loss of repair knowledge brought about by social acceleration and capitalism to their advantage and continue to employ manipulative tactics that prevent repair (Perzanowski, 2021; Rosa, 2013).

Big Tech companies like Apple were not always this unsympathetic toward repair. The first personal computers, like the 1976 Apple I and the 1978 Apple II computers, were shipped with technical descriptions of the systems' processors and circuit designs. It was even common to find repair information on the back of products, and free, step-by-step repair manuals online. The unofficial website [applerepairmanuals.com](http://applerepairmanuals.com) made PDF versions of official repair manuals for Apple's computer products, documents which were normally only available to Apple-authorized repair centres. Unfortunately, as is still done today, the site's owner received an email from Apple's lawyers in June 2006, instructing her to remove the content. It has since become increasingly difficult to find repair manuals online. This has not stopped users and smaller businesses from finding and sharing creative solutions themselves, like on online forums (Mitchell, 2018).

Active R2R proponent iFixit, for instance, provides 94,287 free manuals for 43,685 devices. iFixit are often judges of Apple's fixability standards, frequently taking apart new Apple products in occasional 'teardown' reports written by employees and community members (*iFixit*, 2023). Apple's AirPods are infamously emblematic of manufacturers' antagonism toward repair and of society's ever-increasing speed. Specifically, AirPods are designed with obsolescence in mind. They have consistently been deemed impossible to repair and are completely disposable upon teardown, given their heavily glued, sealed-in batteries. The juxtaposition of Apple's finicky 2019 AirPods – given a repairability score of zero out of 10 – with Samsung's repairable Galaxy Buds demonstrate that this is a profit-oriented design choice (Dempsey, 2019; Dixon, 2019; Rosa, 2013). Additionally, AirPods merely function for 18 to 36 months before "planned obsolescence renders [them] as long-lived, toxic, [e-]waste" because of their irreparability (Taffel, 2023, p. 433). AirPods signify a "massive temporal imbalance between the millennia it took for the materials

employed in AirPods to form”, their brief shelf life, and “the decades or centuries they will adversely affect communities and environments” (p. 435).

Albeit far from perfect, Apple seems to have made its newer AirPods, the over-ear AirPods Max, significantly more repairable, with them having scored a decent six of 10 in repairability. Unfortunately, consumers attempting to fix their AirPods Max will need elaborate toolkits to unscrew the diverse screw types, and may spend hours on internal repairs due to the pentalobe screws and adhesives ferociously guarding the earcups (*AirPods Max*, 2020). Still, Apple has a long way to go to reach acceptable repairability standards. U.S. PIRG's Senior R2R Campaign Director Nathan Proctor released a 2022 report with iFixit's assistance in which they graded popular laptop and cellphone companies' fixability standards. They accumulated French repair scores across 187 devices from 10 prominent electronic manufacturers. The scores were dependent on consumers' abilities to gain access to the necessary repair materials, as well as the companies' records of lobbying against R2R or their membership in anti-R2R associations. Apple's laptops scored a D-, equivalent to 3.16 of 10 in the French reparability index, while its cellphones scored an F or a 2.75 of 10 score. Apple lost the most points for its active lobbying against R2R and its support for R2R-opposed groups (Proctor, 2022).

Clearly, Apple is not only an offender in the purposely unfixable way that it builds and designs its products; it is also blatantly anti-repair in terms of legality. The conglomerate has not shied away from soullessly threatening and taking legal action against small businesses and independent repair stores who depend on repair for their livelihoods, such as Apple's successful battle with Norwegian small business owner Henrik Huseby. Huseby was sued for – according to Apple – importing ‘counterfeit’ iPhone screens, although he was simply refurbishing them without advertising them as genuine Apple parts (Mikolajczak, 2020). Apple has also been involved in

many a legal battle wherein the company itself was found to be in the wrong, such as when it was forced to pay 500 million USD over the deliberate slowing down of older iPhone models (Stempel, 2020).

Unsurprisingly, Apple is not averse to sneaking clauses into contracts, or at least to presenting consumers and businesses certain options with hidden intentions. In 2019, Apple finally launched its Independent Repair Provider (IRP) program after years of making anti-repair decisions and statements, an 'agreement' between Apple and independent repair technicians which was seen as a positive step for R2R (Federal Trade Commission, 2021; Stone, 2020). Upon signing up for the program, 'qualifying companies' can "gain access to genuine Apple parts, tools, training, service guides, diagnostics and resources to perform a variety of out-of-warranty repairs for iPhone and Mac", according to Apple's website (*Independent repair provider program*, n.d., para. 1; Labib, 2021). *Motherboard* was able to obtain a copy of the contract Apple makes businesses sign to join IRP, a document which had not previously been publicly available. The contract posits that repair technicians could be subject to unannounced audits and inspections by Apple, who, if found with 'prohibited' repair parts (what Apple considers 'counterfeit parts' are parts that many independent repair professionals claim should not be viewed as counterfeit. In the contract, Apple often uses broad words like 'prohibited' and 'counterfeit' without elaborating. This ambiguity is an intentional control tactic), will be fined and could be forced to hand said prohibited parts over. These panoptic inspections can continue for up to five years after the shops leave the program. IRP members must also share customer information at Apple's behest, including phone numbers, addresses, and names. This contract is only received after signing a non-disclosure agreement, which occurs after the initial, tedious screening process and credit applications, from which

applicants can be randomly rejected. It took a source at iFixit three months to get through all the steps (Federal Trade Commission, 2021; Gordon, 2020; Stone, 2020).

Once approved into the program, these businesses must effectively advertise against themselves by displaying signs on their storefronts and websites stating that they are not Apple authorized, in addition to obtaining written acknowledgement from customers to ensure that they understand these services are not from 'authorized service providers' – namely, Apple – and that Apple cannot warranty the repair, which could potentially scare customers away. Many independent repair shops, unfortunately, sign the contracts to be granted the opportunity to receive parts directly from Apple, despite the surveillance and program restrictions. This invasive program, along with its expensive nature, clearly makes it a hassle to join and maintain membership to impede third-party technicians from fixing Apple products, thus maintaining its repair monopoly by leading consumers to official Apple stores (Federal Trade Commission, 2021; Gordon, 2020; Stone, 2020). It seems to be nothing but a PR move meant to be used as “evidence that [Apple is] already meeting repair advocates’ demands”, as Apple surreptitiously upholds ownership over consumers’ devices and independent repair stores’ repair capacities (Stone, 2020).

The introduction of the sinister IRP program is not the first time that Apple has backtracked on a statement, a choice, or an idea, either, after much criticism from consumers, R2R advocates, investors, and governments. At one point, Apple redesigned the iPhone 14's internals to make it easier to repair (Gault 2022). Over the years, Apple has even issued various misleading, contradictory public statements concerning repair, some of which were outright, fearmongering lies intentionally used to disinform consumers for profit. Much of the disinformation falls under the guise of safety and security. Apple once tried to kill R2R legislation in Nebraska by claiming that unauthorized iPhone repair would turn the state into a 'mecca' for hackers. Apple's

representatives in the case also declared that unauthorized repair could cause lithium batteries to catch fire, and that there were already enough authorized places for iPhone repair, like Apple stores (Koebler, 2017). Similarly, Apple has continuously warned against at-home repairs due to injury, perhaps so as not to get sued (*Questions for the record*, 2019). It seems that OEMs even hire writers to spread anti-repair news and R2R disinformation, like arguing that R2R is bad for consumers' health (Giovanetti, 2021; Schmidt, 2021). Considering that a lobbyist working for Apple secretly managed to rewrite New York's R2R law, Apple hiring anti-repair writers would not be an outrageous claim (Lovejoy, 2023).

In addition to claiming that it 'loses money' on device repairs every year, Apple continuously maintains that repair is more expensive than replacement, although it fixes the prices itself (Holmes, 2019; *Questions for the record*, 2019). In 2018, a CBC reporter handed a MacBook Pro to outspoken R2R advocate and independent repair technician Louis Rossmann. The Toronto Apple Store's estimated repair costs for the MacBook was 1200 CAD, an outrageous fee that matches the price of a new MacBook Air. Rossmann merely unscrewed the bottom, bent a pin back, and affirmed that such a minor repair would be free, unless the customer needed a cable replacement. He stated that, depending on the model and the difficulty of opening the laptop to replace the cable, the real price would be anywhere in the \$75 to \$100 range (*Independent repair shop*, 2018). Unfortunately, there are many more cunning tactics under Apple and other OEMs' metaphorical corporate sleeves. However, the common threads lie in the fact that these strategies are employed to ensure hegemony over the repair and technology markets, to maximize profit, and to maintain a façade among R2R advocates, consumers, businesses, and governments. They are performative, lucrative, utterly naked capitalist tactics. Social acceleration has made these

strategies, these repair monopolies, and the general loss of repair skills among consumers go unnoticed for decades, until R2R garnered recent attention (Perzanowski, 2021; Rosa, 2013).

It is only logical to ask, then, why millions of people continue to use and purchase Apple products if the corporation is so transparently anti-repair and anti-R2R. The answers lie in repair monopolization, Big Tech oligopolies and thus the lack of other viable options, the interconnectedness of Apple's various products or its locked-in digital ecosystem, Apple 'propaganda' or marketing, the difficulty of switching brands, Apple's popularity, and perhaps its ease of use and preference for its interface (Haselton, 2017). Paying close attention to the conglomerates that provide us with our electronics, like Apple, remains important. The Apple "doesn't fall far from the 'Big Tech' tree"; many of the aforementioned tactics are employed by large technological corporations seeking to impede repair. Some companies are simply worse at covering it up.

## **CONCLUSION: THE FIGHT CONTINUES**

Endless manipulative, profit-driven strategies have made us forget that fixing purchased or owned products once was, and should still be, a consumer right. Living too fast has also come at the detriment of our things, our well-being, our relationships, and our planet. Prolonging the life of possessions and (re-)democratizing repair is not in the interest of organizations, but would be culturally and economically viable for consumers. In the long run, it would also help the environment, and by extension, all life on earth. It is no surprise that we have come to regard our items as perishable due to the gradual alienation from our things, but this can be reversed. Consumer, government, and independent business resistance, as well as compliance on the part of large corporations like Apple, is required to obtain a proper Right to Repair worldwide. Apple has been relatively quiet in 2023 regarding R2R, but the fight continues. Our possessions do not have

to be sites of struggle. We must restore repair to fix and rebuild our world, and R2R is that spark of hope in a growing pile of e-waste that promises just that.

## Bibliography

- AirPods Max teardown*. (2020, December 17). iFixit.  
<https://www.ifixit.com/Teardown/AirPods+Max+Teardown/139369>
- Arends, B. (2018, November 1). *The true cost of an iPhone over your lifetime: \$300,000*. New York Post. <https://nypost.com/2018/11/01/the-true-cost-of-an-iphone-over-your-lifetime-300000/>
- Bierman, A., Upenieks, L., Glavin, P., & Schieman S. (2021, April 16). *COVID-19 has been much harder on those who already had anxiety and financial issues*. UCalgary News. <https://ucalgary.ca/news/covid-19-has-been-much-harder-those-who-already-had-anxiety-and-financial-issues>
- Black, D. (2021, April 5). How tech companies, consumerism, and anti-right-to-repair lobbyists are destroying the environment. *Ultrabookreview*.  
<https://www.ultrabookreview.com/23232-tech-companies-must-be-held-accountable-for-the-environmental-damage-caused-by-their-anti-consumer-practices/>
- Buck, S. (2017, March 3). *GM invented planned obsolescence during the Great Depression, and we've been buying it ever since*. Medium. <https://timeline.com/gm-invented-planned-obsolescence-cc19f207e842>
- Centivany, A. (2021, March). Repair Stories: Why a Right to Repair matters for our things, ourselves, and our world. *Western University*. Talk presented over Zoom for the FIMS Seminar Series, London, Ontario
- DeBellis, A., & Proctor, N. (2021). *Repair saves families big*. U.S. PIRG.  
[https://uspirg.org/sites/pirg/files/reports/RepairSavesFamiliesBig/Repair-Saves-Families-Big\\_USP\\_Jan2021\\_FINAL1a.pdf](https://uspirg.org/sites/pirg/files/reports/RepairSavesFamiliesBig/Repair-Saves-Families-Big_USP_Jan2021_FINAL1a.pdf)
- Dempsey, P. (2019). The teardown: Apple AirPod. *Engineering & Technology*, 14(5), 82-83.  
<https://doi:10.1049/et.2019.0529>
- Dixon, T. (2019, March 28). *AirPods 2 teardown*. iFixit.  
<https://www.ifixit.com/Teardown/AirPods+2+Teardown/121471>
- Federal Trade Commission. (2021). *Nixing the fix: An FTC report to congress on repair restrictions*. [https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing\\_the\\_fix\\_report\\_final\\_5521\\_630pm-508\\_002.pdf](https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing_the_fix_report_final_5521_630pm-508_002.pdf)
- Forti, V., Baldé, C. P., Kuehr, R., & Bel, G. (2020). *The global e-waste monitor 2020: Quantities, flows, and the circular economy potential*. United Nations University (UNU)/United Nations Institute for Training and Research (UNITAR)
- Gault, M. (2020, April 23). *Ventilator companies finally make the life saving devices easier to*

- repair*. Vice. <https://www.vice.com/en/article/884zvx/ventilator-companies-finally-make-the-life-saving-devices-easier-to-repair>
- Gault, M. (2021, April 5). *Colorado denied its citizens the right-to-repair after riveting testimony*. Vice. <https://www.vice.com/en/article/wx8w7b/colorado-denied-its-citizens-the-right-to-repair-after-riveting-testimony>
- Gault, M. (2022, September 19). *iPhone 14 secretly redesigned to be more repairable*. VICE. <https://www.vice.com/en/article/88qmda/iphone-14-secretly-redesigned-to-be-more-repairable>
- Giovanetti, T. (2021, May 2). *'Right to Repair' is bad for your health*. Wall Street Journal. <https://www.wsj.com/articles/right-to-repair-is-bad-for-your-health-11619986159>
- Gordon, W. (2020, February 28). *Apple's independent repair program still needs fixing*. iFixit. <https://www.ifixit.com/News/35840/apples-independent-repair-program-still-needs-fixing>
- Graziano, V., & Trogal, K. (2019). Repair matters. *Ephemera*, 19(2), 203-227. <https://ephemerajournal.org/sites/default/files/2022-01/19-2ephemera-jul19.pdf>
- Haselton, T. (2017, May 1). *Here's why people keep buying Apple products*. CNBC. <https://www.cnbc.com/2017/05/01/why-people-keep-buying-apple-products.html>
- Holmes, A. (2019, November 21). Apple just disclosed that it loses money on device repairs every year. *Business Insider*. <https://www.businessinsider.com/apple-loses-money-on-device-repairs-every-year-2019-11>
- iFixit*. (2023). Retrieved from <https://www.ifixit.com>
- Independent repair provider program*. (n.d.). Apple. <https://support.apple.com/en-ca/irp-program>
- Independent repair shop fixes Apple laptop at a low price*. (2018). CBC News/Radio Canada. <https://www.cbc.ca/player/play/1346591299727>
- Jackson, S. J. (2014). Rethinking repair. In T. Gillespie, P. J. Boczkowski & K. A. Foot (Eds.), *Media technologies: Essays on communication, materiality, and society* (pp. 221-239). The MIT Press
- Koebler, J. (2017, February 17). *Apple tells lawmaker that right to repair iPhones will turn Nebraska into a 'mecca' for hackers*. VICE. <https://www.vice.com/en/article/pgxgpg/apple-tells-lawmaker-that-right-to-repair-iphones-will-turn-nebraska-into-a-mecca-for-hackers>
- Labib, J. (2021). The Right to Repair: (Re)building a better future. [Poster]. Scholarship@Western, Western University, London, Ontario. <https://ir.lib.uwo.ca/usri/usri2021/researchoutputshowcase/140/>

- Labib, J. (2022). A qualitative look into repair practices. [Poster]. Scholarship@Western, Western University, London, Ontario. <https://ir.lib.uwo.ca/usri/usri2022/ReOS/170/>
- Lovejoy, B. (2023, February 17). *Lobbyist working for Apple and others managed to rewrite NY Right to Repair law*. 9to5Mac. <https://9to5mac.com/2023/02/17/lobbyist-working-for-apple/>
- Micolajczak, C. (2020, June 4). *Apple crushes one-man repair shop in Norway's Supreme Court, after three-year battle*. Right to Repair EU. <https://repair.eu/news/apple-crushes-one-man-repair-shop/>
- Mitchell, S. (2018). Narratives of resistance and repair in consumer society. *Third Text*, 32(1), 55-67. <https://doi.org/10.1080/09528822.2018.1459110>
- Nellis, S. (2021, January 27). *Apple sees revenue growth accelerating after setting record for iPhone sales, China strength*. Reuters. <https://www.reuters.com/article/us-apple-results/apple-tops-wall-street-expectations-on-record-iphone-revenue-china-sales-surge-idUSKBN29W2TD?il=0>
- O'Reilly, K. (2023). *Out to pasture: Repair restrictions lead to tractor downtime and high costs. Right to Repair would help*. U.S. PIRG Education Fund and National Farmers Union. <https://publicinterestnetwork.org/wp-content/uploads/2023/04/Out-to-Pasture.pdf>
- Perzanowski, A. (2021). *The Right to Repair: Retrieving the things we own*. Cambridge University Press. <https://doi.org/10.1017/9781108946926>
- Proctor, N. (2022). *Failing the fix: Grading laptop and cell phone companies on the fixability of their products*. U.S. PIRG Education Fund. [https://publicinterestnetwork.org/wp-content/uploads/2022/07/Failing20the20Fix\\_USPEF\\_March2022.pdf](https://publicinterestnetwork.org/wp-content/uploads/2022/07/Failing20the20Fix_USPEF_March2022.pdf)
- Proctor, N. (2020, September 2). *The right to repair could help address a critical shortage in school computers*. U.S. PIRG. <https://uspig.org/blogs/blog/usp/right-repair-could-help-address-critical-shortage-school-computers>
- Questions for the record from the honorable David N. Cicilline, chairman, subcommittee on antitrust, commercial and administrative law of the committee on the judiciary*, 116<sup>th</sup> Cong. (2019) (testimony of Kyle Andeer). <https://docs.house.gov/meetings/JU/JU05/20190716/109793/HHRG-116-JU05-20190716-SD036.pdf>
- Rosa, H. (2013). *Social acceleration: A new theory of modernity*. Columbia University Press. <https://www.jstor.org/stable/10.7312/rosa14834>

- Schmidt, K. (2021, February 25). *Right to Repair rears its ugly head*. Farm Equipment. <https://www.farm-equipment.com/blogs/6-opinions-columns/post/19166-right-to-repair-rears-its-ugly-head>
- Stempel, J. (2020, March 2). *Apple to pay \$500 million to settle U.S. lawsuit over slow iPhones*. Yahoo! News. [https://ca.movies.yahoo.com/apple-pay-500-million-settle-154848278.html?guccounter=1&guce\\_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce\\_referrer\\_sig=AQAAADPsAWyQUu-FvI3pLiqLII6YJvBhaM0nkluCOJgjnO66H8jgFvNNzEW0HsIW0Bd0C0ThN-muwTxRYByFPoYdY-fgxa9UYLVyNgvwpF2a\\_IHx7bPEULNf4DwtAhEkV29GzTuq2rzvp6lR2ZJWMUhse51B0ltTk405IdTeHqN08LPs](https://ca.movies.yahoo.com/apple-pay-500-million-settle-154848278.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAADPsAWyQUu-FvI3pLiqLII6YJvBhaM0nkluCOJgjnO66H8jgFvNNzEW0HsIW0Bd0C0ThN-muwTxRYByFPoYdY-fgxa9UYLVyNgvwpF2a_IHx7bPEULNf4DwtAhEkV29GzTuq2rzvp6lR2ZJWMUhse51B0ltTk405IdTeHqN08LPs)
- Stone, M. (2020, February 6). *Apple's independent repair program is invasive to shops and their customers, contract shows*. Vice. <https://www.vice.com/en/article/qjdjnv/apples-independent-repair-program-is-invasive-to-shops-and-their-customers-contract-shows>
- Taffel, S. (2023). AirPods and the earth: Digital technologies, planned obsolescence and the Capitalocene. *EPE: Nature and Space*, 6(1), 433-454. <https://doi.org/10.1177/251486221076136>
- World Health Organization. (2021). *Children and digital dumpsites: E-waste exposure and child health*. <https://www.who.int/publications/i/item/9789240023901>