repair.org

18 July, 2021

Australian Government Productivity Commission
Commissioner Julie Abramson
Commissioner Paul Lindwall

Dear Commissioners:

We offer these comments based on our experience considering the scope of repair monopolies and the legislative, regulatory and operational means to restore competition based in the US. We hope that our experience is helpful to you in your deliberations.

BACKGROUND

Repair monopolies for high-tech equipment have been the norm, and not the exception, since the dawn of the computer industry in the 1940s. By the mid 1950s, IBM (Then International Business Machines) had more than 80% market share and only rented their products and refused to sell them. This retained ownership made it impossible for any independent repair or trade in used equipment. It took the US Department of Justice to enforce antitrust law in the form of the 1956 Consent Decree to restore competition to the computer industry for products and services.

The Consent Decree unlocked innovation in computing by providing a level playing field for product design, support services (including repair) and used equipment trade. It served the world well until it was lifted in 1997.[1] New market entrants, such as Apple and its competitors, did not evolve under the roughly 50 years of active antitrust enforcement and have been free to build products that are repair (and software) monopolized. We can date the return of repair monopolies in the computing industry to 1997.

Our laws have not changed. Tying the purchase of a service (such as repair) to the original purchase remains an illegal tying agreement under US law. Enforcement is so poor that the vast majority of consumers believe that repair **should** be controlled by the OEM. This assumption is pervasive across markets, and around the world.

FTC "NIXING THE FIX" REPORT TO CONGRESS

Many of the questions raised by the Report have already been answered by the US FTC Report to Congress released May 6, 2021. [2]We had been active participants in the original request for

[1] https://www.wsj.com/articles/SB836341174520145000
[2] 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

empirical evidence, participated as panelists in a July 2019 workshop, and our experience was clearly taken into account in the report.

The key takeaway from the Report is that with two years of study, and persistent requests for evidence in support of OEM concerns about potential harm to consumers for matters of safety, security or brand image -- manufacturers presented “scant” evidence in support of any of their “reasons” to monopolize repair. The only empirical evidence of actual consumer harm was a 2011 battery fire from a consumer cell phone that was attributed to a screw piecing the protective coating.

The FTC examined suggestions that independent repair would be less competent and more likely to harm consumers, create potential weaknesses in cyber security, violate environmental regulations, and harm innovation. In each case OEMS failed to provide any empirical evidence that these harms actually exist.

We believe reading the report in its entirety will be productive.

EVIDENCE

We disagree with the notion that evidence of damage to consumers is hard to find. We have found many sources of evidence that repair monopolies are harmful to consumers - ranging from studies performed by consumer groups (US PIRG has submitted several of their studies), to reports on industry practises by IBIS WORLD (also referenced in your report) and many think-tanks or commercial consulting services.

Ascertaining the potential repairability of products pre-purchase is also easily accomplished by searching public marketing and contract documentation for any product of interest. If the product is easily repairable -- the manufacturer will have posted ordering information for documentation, parts, tools, schematic diagrams, and firmware patches and fixes and security updates without a paywall. Most consumers will notice they can find this information readily for some brands and not others. Lack of clear access to any of the preceding is evidence of monopolized practises.

It is also easy to calculate financial impacts with minimal effort. Consumer Reports (a leading consumer advocacy and research organization) advises their readers that if a repair price is more than 50% of the replacement cost of the item -- buy the replacement. Repair pricing, when monopolized, is always optimized by the OEM to incentivize the replacement purchase. This is not a technological issue. Shareholders simply demand optimal returns. It takes a highly principled Board to eschew the profit potential of repair monopolies.

More formally, US PIRG has studied the impact of restricted repair of common household products and calculated that families could save, on average, US$330 per household with the

option of independent repair. For 8.3 million households (Australian households estimated as of 2016), this is an annual economic tax on consumers of billions that does not create jobs or add value to Australians.

Efforts in France to develop a Repairability Index is proving useful for all consumers and for all products covered by the index. [3] As these metrics improve, consumers will have increasing visibility into how they can best purchase equipment that meets their needs.

COMMON THREADS ACROSS INDUSTRIES

It has been our experience since 2010 -- as reported by our members in their daily work -- that the vast majority of technology-enabled new products available today are repair-monopolized. We know this because our members are part of the worldwide network of technology repair businesses that support OEMs and independents alike.

Repair monopolized products now include nearly all cell phones and internet communications equipment, all consumer electronics including all TVs, IOT devices, and home appliances. In addition we can document repair monopolies for all medical equipment and assistive devices, industrial controls, CNC equipment, and all land-based motor vehicles other than automobiles. (The Auto and Commercial Vehicle (over-the-road) industries negotiated a Memorandum of Understanding for their products in 2014 and 2015, respectively.) Monopolies for repair of products persist despite specific exemptions made by our Copyright Office to break DRM/TPM for purposes of repair.

Repair monopolies are so pervasive that for many categories of equipment, it is no longer possible to avoid monopolies through better product selection. Competition for repair outside of the OEM no longer exists other than for a few very commoditized products such as laptops and desktops built using open source software and commodity parts.

We routinely argue the need for broad legislation against lobbyists seeking to have their particular client exempted. From the standpoint of the consumer -- the price, shape, size or color of the product is irrelevant. One can either fix the things that belong to them, or one cannot.

REPAIR MONOPOLIES ARE EASY

Monopolies on repair are extremely easy to create and uniformly damaging. There are 5 requirements for making any repair on any digitally enabled product. Remove just one of 5 and the monopoly is complete. In order to fix a thing -- any thing -- one needs;

a) Repair documentation
b) Repair diagnostics

[3] https://www.gouvernement.fr/un-indice-de-reparabilite-pour-lutter-contre-l-obsolescence-des-produits

c) Repair tools
d) Repair service access firmware
e) Service parts

All OEMs that offer any form of in-warranty repair or post-warranty services will have created all of the above and merely limit access to some or all of the 5 required items. Refusal to sell service parts is as devastating to the functional business of repair as a refusal to provide a schematic diagram, diagnostics, tools or the ability to access service firmware.

The above list applies not only to products with a computer chip, but also for products with parts that are extremely difficult to manufacture such as precision parts used in watches and clocks. In our Digital Fair Repair legislation we had focused primarily on the presence of a computer part because of the widespread use of service access firmware to block repair even when parts could be alternatively sourced.

Not everything is made to be repaired and Right to Repair legislation as we have supported it in the US does not address design choices which may prevent repair, such as the use of adhesives to secure parts, cases, or batteries. Regulators in the EU have already banned the use of adhesives for large energy use products such as home appliances. It is expected that similar regulations will be extended into more products over time.

CONTRACTS

Limitations on repair are common within contracts and are not unique to any one brand or even any one category of equipment. An unfair or deceptive contract is not product specific.

Contracts that should clearly document the relationship between the parties no longer reflect the entire arrangement. OEMS sell equipment outright, disclaim their interest in all problems of use including safety, security and lost profits in the sales contract, but then selectively argue they have the rights of owners to dictate use in accessory contracts commonly known as an “End User License Agreement” (EULA).

Any product sold with any form of EULA is almost always repair monopolized. Hiding material terms from buyers is inherently unfair and deceptive. EULA are not available for negotiation pre-purchase, which is why Unfair and Deceptive Acts and Practises (UDAP) are suitable for blocking the impact of EULA in US law.

EULA commonly remove the right of the buyer to :

a) Open the covers and look at the insides
b) Upgrade, downgrade or improve the purchased product
c) Create interoperable features
d) Resell the item
e) Reverse engineer

The above does not directly reflect warranty issues, which here in the US are covered by the Magnuson-Moss Warranty Act of 1975. The MMWA Act has been widely ignored for so long that consumers commonly believe they will harm the manufacturer even after the end of the warranty period if they choose independent of consumer-directed repair.

CONSISTENCY

Within our legislative template we aimed to create a simple and consistent set of principles that would apply as broadly as possible so that consumers (and business buyers) would know what to expect with regard to repair ahead of making any purchases. We believe that consumers should not have to educate themselves on each and every product repair policy when general business law should already protect them from unfair and deceptive acts and practises.

When crafting our legislative approach, we considered if it were possible or practical to require specific formats for documentation, duration of parts availability, or even labeling. We chose the lightest possible set of requirements that would be universally available at no additional cost to OEMS. We have also considered that legislation needs to stand the test of time, which must account for future innovation and change, so we carefully avoid describing or defining product categories.

We have also intentionally avoided lifecycle, durability, reliability or warranty mandates for the same reasons. We believe in choice. Consumers will choose for themselves which products they want to keep and for how long. Until consumers have repair choices -- they cannot engage in buying for longer useful life, higher reliability or greater durability.

Not everything related to repair monopolies can be resolved by state legislation. Federal laws on copyright protection are particularly important to amend to remove the threat of copyright peril when breaking technological locks blocking repair. (TPM/DRM). We have been successful arguing for exceptions to copyright law for purposes of repair, but many distortions remain. TPM/DRM locks are being used to simply thwart repair and are not at all protective of any IP.

TPM and DRM are most damaging to the production of tools for making repairs more efficient. Section 1201 - anti circumvention --originally specific to VCR recording duplication equipment - has been suborned by OEMS to litigate against the production of all tools, even if the tool in question cannot be used for content piracy. We suggest that Australia carefully avoid similar limitations.

WARRANTIES

Warranties are not synonymous with product quality, durability or repairability. Warranties are marketing tools used to entice buyers with promises of support in the event of a product defect. Warranties, at least in the US, are not required.

Consumers are not uniformly well-served by warranties as they exist today. Coverages are written by OEMS to be the lowest cost of delivery to the OEM and still appear as a marketing advantage. Warranties are often very limited, often allow for substitutions instead of repairs, include exclusions for wear and tear, often include provisions requiring arbitration in case of a dispute, and rarely have any requirements of prompt attention, data transfer, or even data privacy.

Mandating additional years of warranty coverage will add direct costs to consumers without any changes in product design. OEMs will add their costs of in-warranty repair into the product purchase, and the consumer will not be able to negotiate those prices nor reduce those costs through the use of alternative services - including do-it-yourself options.

Comments Specific to Sections in the Request for Information:

INFORMATION REQUEST 3.1 REPAIR FACILITIES, SPARE PARTS AND SOFTWARE UPDATES

Consumers always face difficulties when repair materials (parts, tools, diagnostics, manuals and firmware) are unavailable. Digital product repair requires access to all 5 of the preceding and the lack of just one of the 5 blocks repair.

Digital service parts are typically only manufactured at the time of the original production of the product. Parts are therefore in limited supply and eventually run out. OEMS subcontract to specialists in “Board-level” repairs to maintain a supply of service parts. Several of our members are providers of these services. The most essential information to conduct this type of repair is a schematic diagram.

Some US States have mandated parts availability but the manufacturers also have the option to provide a replacement product. The replacement product might not be identical in function. The option of repair remains less widely available than intended as a result. Mandates in the EU for parts availability are limited to “Professionals”, but without a definition we are concerned that OEMs will not provide parts outside their branded repair subcontractors.

Defect support for software, specifically firmware and not apps or operating systems, is necessary for all products, but after a period of time, OEMs cease investigating known problems and focus on defect support for the next product. If OEMS do not offer continued defect support, the consumer should be able to use the product indefinitely.

Very few OEMS, if any, offer any form of guarantee of software performance -- in fact in the contracting world disclaimers are common. OEMS do stop making patches and fixes and often drop support with little notice. Software Licenses for apps or content have their own service agreements and are contracted separately.

We are not aware of any requirements here in the US that dictate the period of software support for any products.

INFORMATION REQUEST 4.1 CONSUMER HARM FROM LIMITS ON ACCESS TO REPAIR SUPPLIES

In the FTC Report to Congress, the FTC reported that OEMs were unable to provide any evidence that repairs made by consumers or independents were any less acceptable than those made by OEMs. The reason is simple. If a technician has access to OEM diagnostics - the diagnostics both pinpoint the problem and also confirm the repair has been completed. It is access to diagnostics that limits repairs.

The size of the repair market is extremely difficult to measure. The proportion of repairs made by independents has continued to shrink as manufacturers withdraw selling repair materials. Nor are OEMS able to calculate how many repairs are made directly by consumers because many refuse to sell service materials directly and are therefore blind.

Consumers are unable to calculate the life-cycle costs of projected purchases because there are no requirements (other than in France) that enable such a calculation. Very few OEMS post parts pricing, and even if parts are available, new firmware pairing requirements are not disclosed or available for negotiation.

Consumers are broadly unable to buy alternative products that are less restrictive. In our report to the FTC, we documented a total lack of competitive options for TV purchases, cell phones, desktop computers, refrigerators and farm equipment. The only category of equipment that remains easily repairable with credible competitive options are laptops and desktops made with commodity parts and windows or linux operating systems.

Brand Image is a marketing concept -- not a legal right. OEMS are paid in full for their brand image at the time of purchase in the same way all costs of R&D, advertising, plant and equipment, etc are associated with the “First Sale”. Consumers are never obligated to care about brand image. Consumers might like to blame the OEM for a lousy product that costs a lot of money to repair, but thats what happens when OEMS make lousy products that are difficult to repair.

The FTC investigated projections about harm to brand image to OEMS and again, no evidence was provided that OEMS were harmed or even subjected to increased liability torts as the result of consumer-directed repair. In US law, liability for errors of use belongs to the equipment owner, not the manufacturer, unless the product itself is defective. A repair made by a consumer or an independent does not add new risk to manufacturers.

The same limitations on repair exist for medical equipment, construction equipment and swiss watches. Excuses for blocked repair in these industries are just as invalid as those for other products. Highly regulated industries are not incompatible with repair --and repair technicians

all over the world operate effectively in regulated industries. The watch industry is thwarted by a literal cartel of swiss OEMs that will not sell parts which is also a method of monopolizing repair.

INFORMATION REQUEST 4.2 A POSITIVE OBLIGATION TO PROVIDE ACCESS TO REPAIR SUPPLIES

We have been following the success of the auto industry in making independent repair possible on fair and reasonable terms. The experience of competition for repair since 2012 shows that consumers widely benefit from access to competitive repair options, and also proves that manufacturers are not harmed by consumer-directed repair.

Parts availability is a problem as discussed above. Digital parts in particular are impossible (currently) for a small repair shop to manufacture -- so mandates on availability should be considered. We favor enabling parts repairs ahead of manufacturing supply mandates which will likely raise costs to consumers.

INFORMATION REQUEST 4.3 A PROHIBITION ON WARRANTY VOID TERMS

Warranties are widely misunderstood by consumers. Warranties are promises made by the OEM to support defects in design or manufacturing for a limited period of time. As an offer -- consumers are not required to use the service, which in many cases is inconvenient or comes with unappealing limitations or delays. As explained above -- without enforcement, such laws are widely ignored.

End User License Agreements are all entirely unfair and deceptive and should be banned but we do not know if such a band is legally possible in state legislation. We therefore focused on existing enforcement options against UDAP to prevent EULA from removing existing federal rights to repair under copyright and patent law. OEMS already have effective legal protections for the copyright, patents and trade secrets. The only purpose of modern EULA (as distinct from EULA included with shrink-wrapped media) is to force consumers to agree to terms and conditions they would almost certainly reject if disclosed.

INFORMATION REQUEST 5.1 IMPROVING ACCESS TO REPAIR INFORMATION

Manufacturers have taken to referencing their documentation as “”Proprietary” as though the word means “secret”. Repair documentation is not secret and is purpose built for use for making repairs. Under copyright law, its illegal to make copies, so documentation must be made available by the OEM and freely distributed to the consumer or any independent repair business. Repair documentation, once posted online, does not require any incremental cost to distribute.

Furthermore, repair documentation never contains trade secrets. Under the Uniform Trade Secrets Act[4], publication and distribution eliminates any claim of secrecy. Secrets must be actual secrets, with economic value and not ascertainable by alternative means. A schematic diagram does not provide sufficient details to enable construction of a duplicate product and the connections between parts is ascertainable by common testing tools. Repair manuals for common products, such as cars and appliances used to be widely available at a local library and do not pose a threat to valuable IP.

INFORMATION REQUEST 6.1 PRODUCT LABELLING SCHEME

Product labelling related to durability and reliability will be difficult if not impossible to implement. Manufacturers can only estimate the failure rates of their products and at this time, there are no data collection repositories that could validate performance. France is providing a useful guide to how to require improved information to consumers in advance of purchasing, but this is not a labelling requirement.

Labelling, even with a scannable QR code, has been strongly resisted by OEMS in various standards efforts, such as EPEAT. It appears to be a practical problem of physical space when many safety labels are also mandated and differ by country.

Products that have poor durability or that are designed to fail prematurely will continue to flow into the market. The only protection against poorly designed or poorly made products is widely available access to repair materials - regardless of industry.

SUMMARY

We applaud your efforts to make it possible once again for consumers to determine for themselves whom they trust to help them repair their purchases. After all -- the buyer paid in full for the product and the OEM transferred all their rights and responsibilities at the point of purchase.

If you have any questions or if we can be of any further service, please do not hesitate to contact us.

Regards,

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Executive Director
Digital Right to Repair Coalition (aka Repair.org)
https://repair.org

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4 https://www.law.cornell.edu/wex/trade_secret#:~:text=The%20Uniform%20Trade%20Secrets%20Act,Columbia%20have%20adopted%20the%20UTSA.