Submission to the Productivity Commission

to the draft report on

‘The Right to Repair’

6 August 2021

Overview

Digital Rights Watch (DRW) and Electronic Frontiers Australia (EFA) welcome the opportunity to submit comments to the Productivity Commission, addressing the draft report on the "Right to Repair". As organisations working on the protection of digital rights, we are increasingly concerned by the need for a robust right to repair in Australia. We view this inquiry as incredibly timely, and we are available to the Productivity Commission for any further inquiries pertaining to this submission.

We are primarily concerned with the following areas as they relate to the right to repair:

- public safety implications with particular regard to digital security vulnerabilities
- increasing challenges to access technology and the exacerbation of the "digital divide" without affordable or readily available repair options
- the exacerbation of Big Tech monopolies
- the environmental impacts of e-waste
- the overarching impact upon DIY tech culture and innovation

For reference we would also like to share the submission made by EFA on the Right to Repair Issues Paper in 2021.[1]

Digital Rights Watch

Digital Rights Watch is a charity organisation founded in 2016 whose mission is to ensure that people in Australia are equipped, empowered and enabled to uphold their digital rights. We stand for Privacy, Democracy, Fairness & Freedom in a digital age. We believe that digital rights are human rights which see their expression online. We educate, campaign, and advocate for a digital environment where individuals have the power to maintain their human rights.[2]

Electronic Frontiers Australia

Established in 1994, EFA is a national, membership-based, not-for-profit organisation representing Internet users concerned with digital freedoms and rights. EFA is independent of government and commerce, and is funded by membership subscriptions and donations from individuals and organisations with an altruistic interest in promoting civil liberties in the digital context. EFA members and supporters come from all parts of Australia and from diverse backgrounds. Our major objectives are to protect and promote the civil liberties of users of digital communications systems (such as the Internet) and of those affected by their use and to educate the community at large about the social, political, and civil liberties issues involved in the use of digital communications systems.[3]

[1] EFA Submission to the Right to Repair Issues Paper, February 2021. https://www.pc.gov.au/__data/assets/pdf_file/0019/272350/sub065-repair.pdf
[2] Learn more about DRW at https://digitalrightswatch.org.au
[3] Learn more about EFA at https://www.efa.org.au

General remarks

DRW and EFA strongly support a right to repair, and we encourage the Commission to propose legislative changes that would ensure Australians have the right to repair faulty goods, including any software they may contain.

As the digital ecosystem grows all around us, consuming cities, workplaces, our places of leisure and even governance, the potential harm caused by digital security weaknesses threatens us all. Beyond this, as Big Tech companies continue to amass immense amounts of power, allowing a continued monopoly over the repair market continues to the imbalances of market power which currently exist. The right to repair is an essential step toward mitigating these issues, as well as some of the environmental harm caused by the technology industry and its associated culture of consumerism.

Repair monopolies held by major tech companies, heavy handed Digital Rights Management (DRM) technologies, and onerous restrictions on documentation, parts and third party repair options significantly harm Australian consumers, innovation, and the planet.

Australia is currently lagging behind our international counterparts who have taken action on the right to repair. The United Kingdom has introduced right to repair rules that legally require companies to make spare parts available, and in the United States, the Federal Trade Commission has been directed by executive order to draft new regulations to give consumers more rights to repair products independently.

DRW and EFA are generally supportive of the Productivity Commission's proposed recommendations, however we wish to emphasise the need to take a holistic approach, and to ground the scheme in a rights-based framework. While we understand the need to emphasise issues surrounding competition, we are concerned that by doing so the Commission risks overlooking the importance of other factors, such as digital security, environmental sustainability, and issues related to fairness and the digital divide.

Public Safety Implications

Insecure software running on consumer devices connected to public networks poses serious public safety concerns. Malware and viruses on one consumer's unpatched device can spread to other vulnerable devices—a weakness which can be exploited by cyber criminals to create botnets, and to infiltrate the networks, which may facilitate foriegn espionage, ransomware attacks, information theft, and more. Internet of Things (IoT) and "smart home" devices are of particular concern.

Vendors are not currently required to service and repair goods for their full useful life under the *Competition and Consumer Act 2010*, rather, only for a "reasonable" amount of time. A right to repair which includes software as well as hardware would help to ensure that vulnerable devices can be made safe by repairing the software running on those devices.

This, in turn, reduces the threat to those who own and use the products, as well as others on the network they are connected to.

Beyond individual digital security concerns, the need to ensure up-to-date software is running on consumer products has community- and national-level implications. Enabling consumers to participate in good digital security practices benefits Australian communities and the country as a whole. This is impossible to achieve if consumers are unable to—or prevented from—repairing, updating or patching their devices and the software that runs on them.

The Commission notes in its draft report that "it is now commonplace for cars, fridges, and even coffee machines to have embedded software in them". As many of our everyday devices are "smart", or will be in the near future, it is not enough to only include hardware when considering a right to repair. The need to update software is essential on smart devices in order to address potential security weaknesses and the resulting public safety implications.

In many cases, the vendor for an IoT product simply goes out of business and consumers are left with a device they cannot acquire updates for, and are unable to repair.[4] Because the product still functions, consumers continue to use the product despite its vulnerability. The risk to public safety of the ever-increasing number of vulnerable IoT devices connected to public networks should not be underestimated.

A right to repair would ensure that vulnerable devices purchased by consumers can be made safe by repairing the software running on those devices, thereby reducing the threat to themselves and to others. This would not require the participation of the vendor, which may no longer exist, and would prevent consumers from being punished for 'jail-breaking' devices they own and sharing the code, if the software vendor is no longer supporting the device. This facilitates community-based software support and repair efforts, as well as supporting the rights of a hardware owner to install software of their choice on their devices.

We do note, however, that there is a level of concern from manufacturers regarding their ability to maintain good security hygiene should independent repairs be made more widely available. While this is indeed an issue, we do not believe it is an insurmountable one.

While there is a lot of focus on ensuring and communicating durability and repairability of hardware, we would like to see a greater focus on manufacturers' role in providing secure software in their products that prevents unauthorised deployment of malware but does not restrict the rights of consumers that purchase and own these products.This aligns with the Cyber Security Strategy 2020, in which the Australian Government made a commitment to clarify cyber security obligations for businesses, including with respect to the security of consumer devices.[5]

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[4] 'Abandoned Tech: When IoT Devices and Solutions Get Left Behind', October 2018, https://connectedworld.com/when-iot-devices-and-solutions-get-left-behind/.
[5] Australia's Cyber Security Strategy 2020, Department of Home Affairs, https://www.homeaffairs.gov.au/cyber-security-subsite/files/cyber-security-strategy-2020.pdf

We also note that the Commission has proposed that the ACCC develop durability guidelines, which the ACCC has said would be "unworkable", in favour of labelling of goods by manufacturers.[6] While we agree that labelling and product rating systems can indeed be useful, provided that the criteria is something that can be objectively measured, we do not wish to see labelling used as a way to avoid meaningful regulation.

The Department of Home Affairs has suggested cyber security labelling, "similar to energy efficient ratings."[7] We do not support the use of cyber security ratings as so much of digital security risk is context dependent, is related to the way in which devices are *used* rather than how they are *built,* and is liable to change over time without notice, as new vulnerabilities are discovered and exploited all the time. Cyber security ratings would, quite literally, give individuals and organisations a false sense of security. We would prefer to see cyber security *standards*, as suggested by the Department of Home Affairs, instead.[8]

The Digital Divide

The Australian Digital Inclusion Index (ADII) 2020 report emphasises that the digital divide remains apparent in Australia, with those in lower income households at a particular disadvantage with regard to digital inclusion.[9] We believe that a lack of a right to repair has the potential to further exacerbate the digital divide.

The ADII, as well as other major government reports such as Australia's Tech Future[10] emphasise the importance of digital inclusion for the future of Australia's economy, yet, they lack any reference or consideration of the impact of a lack of ability to repair technology devices.

The ADII measures three key dimensions of digital inclusion: access, affordability and ability. Access (to internet technology such as computers and mobile phones) and affordability are of particular interest with regard to the right to repair. Notably, in 2020, those in low-income households (less than 35,000 per annum) had a digital inclusion score of 30 points less than those in high-income households (higher than 150,000 per annum).[11] This gap is not showing signs of closing, as it has remained generally unchanged since 2014. Digital inclusion is also much higher in capital cities rather than rural areas.

The Commission has explored in its draft report how accessing official repairs for consumer products such as smartphones and laptops can be a particularly costly endeavor. It can also

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[6] ACCC submission to the Productivity Commission on the Draft Report on the Right to Repair, July 2021, https://www.pc.gov.au/__data/assets/pdf_file/0009/279342/subdr214-repair.pdf
[7] Department of Home Affairs submission to the Productivity Commission on the Draft Report on the Right to Repair, July 2021,https://www.pc.gov.au/__data/assets/pdf_file/0004/279337/subdr213-repair.pdf
[8] Department of Home Affairs submission to the Productivity Commission on the Draft Report on the Right to Repair, July 2021,https://www.pc.gov.au/__data/assets/pdf_file/0004/279337/subdr213-repair.pdf
[9] 'Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2020', https://digitalinclusionindex.org.au/wp-content/uploads/2020/10/TLS_ADII_Report-2020_WebU.pdf
[10] 'Australia's Tech Future', Department of Industry, 2018 https://www.industry.gov.au/sites/default/files/2018-12/australias-tech-future.pdf
[11] 'Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2020', https://digitalinclusionindex.org.au/wp-content/uploads/2020/10/TLS_ADII_Report-2020_WebU.pdf

be immensely time consuming and inconvenient—especially to those who live in rural areas and face unreasonable travel time to access official repairs.

While those with a higher income may not think twice about opting to 'just get a new one', those on lower incomes do not have the same luxury. For families who share devices, or those who do not readily have access to a 'backup', the need to repair a device can result in significant inconvenience, including possible loss of income. Although local, independent repair options may offer a more affordable price point and faster turnaround time, concerns around warranty void terms—in which consumers are required to use authorised repair services or parts from a particular company to keep their warranty coverage—may force consumers to make unreasonable decisions.

We need to encourage and incentivise companies to build long lasting, high quality products, but we *also* need a right to repair to encourage a robust secondary market of repairable products. Making durable, high-quality products in the first place is important, yet many consumers may not be able to afford such products when they are brand new. A strong secondary market is essential in order for technology to be accessible to people across the socio-economic spectrum.

Big Tech Monopolies

Big Tech companies including Apple, Google, Amazon and Microsoft already have immense power in the technology industry due to their huge market share. As concluded by the US House Judiciary Subcommittee on Antitrust, these companies have amassed such power that they are able to act as monopolies, hurting innovation and impeding competition.[12] A comprehensive report released by the US Federal Trade Commission, "Nixing the Fix", shows that there are clear barriers that prevent people from performing their own repairs or seeking out independent repairs, often caused by the manufacturers themselves. This includes physical restrictions; limiting the availability of parts, repair manuals, and diagnostic software and tools; and designs that make independent repairs less safe.[13] Such practices further entrench the power and market share that these companies are accumulating.

The Commission noted in its draft report that "manufacturers are typically the main and sometimes the only providers of repairs for their products. This has contributed to widespread concerns that some manufacturers are using their dominant position in repair markets to restrict the competition". Given that many of these companies have sought to dominate the market and impinge upon competition, often by absorbing any possible competitor, it is not a stretch to consider they would seek to do so in the repair market. For example, Apple has bullied small independent repair shops, causing their owners to spend

[12] Investigation of Competition in Digital Markets, Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, United States 2020, https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf?utm_campaign=4493-519

[13] 'Nixing the Fix: An FTC Report to Congress on Repair Restrictions', Federal Trade Commission, May 2021, 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

exorbitant amounts in legal fees and restricting the service they can provide to their local communities.[14]

The Australian Government has clearly expressed a desire to increase the regulation of Big Tech. We recommend that the right to repair be seen as one way to address market power imbalances that currently exist.

As highlighted in EFA's previous submission[15], a right to repair would enable consumers to make use of an inbuilt market mechanism to counter attempts at abuse of market power. This counterbalance to market power would act as a kind of automatic stabiliser without the need to involve market regulators to intervene if a market failure occurred. We believe this is particularly important for technology products as the majority of such products are not manufactured in Australia.

Environmental Impact

We are deeply concerned about the environmental impact of electronic waste (e-waste), fueled by higher consumption rates, shorter product lifespans, and limited repair options. Notably, the Global E-Waste Monitor 2020 reported that e-waste has increased by 21% from 2014-19, and is predicted to double the 2014 figure by 2030.[16] Their research also shows that Australia generated 21.7kg of e-waste per capita (2019), which places Australia in the top 5 generators of e-waste, globally.

We note that Australia has taken some steps to improve recycling of technology products, including the National Television and Computer Recycling Scheme and some states banning the placement of e-waste in landfill. We also note that various states have made efforts to educate the public about the environmental impact of this waste. Sustainability Victoria runs a campaign to encourage people to understand the damage caused by e-waste, and resources to assist people in recycling their technology products.[17]

While these measures are a start, recycling products is only one part of the problem. Implementing a robust right to repair in Australia would be an important complementary step to minimise the environmental harm caused by e-waste. Enabling people to repair and upcycle the technology they use will reduce the amount of e-waste to be recycled by third parties, or ending up in landfill. Enshrining a strong right to repair will also play an important role in contributing to a shift away from "throwaway culture", to a new circular vision for electronics - as proposed by the World Economic Forum.[18]

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[14] 'Apple is still trying to sue the owner of an independent repair shop,' Vice, 2019 https://www.vice.com/en/article/9kxzpy/apple-is-still-trying-to-sue-the-owner-of-an-independent-iphone-repair-shop-louis-rossmann-henrik-huseby

[15] EFA Submission to the Right to Repair Issues Paper, February 2021. https://www.pc.gov.au/__data/assets/pdf_file/0019/272350/sub065-repair.pdf

[16] Global E-Waste Monitor Report, 2020, http://ewastemonitor.info/

[17] Dispose of e-waste, Sustainability Victoria, June 2021, https://www.sustainability.vic.gov.au/e-waste

[18] 'A new circular vision for electronics,' World Economic Forum, January 2019, page 16, http://www3.weforum.org/docs/WEF_A_New_Circular_Vision_for_Electronics.pdf

We are also concerned about “planned obsolescence”, whereby technology products are designed with an intentionally short life, or have regular product updates, to compel consumers to buy new products rather than fixing the ones they already have. While there are indeed some factors that may contribute to high product turnover such as fashion, trends or improved function - especially with regard to personal technology products such as smartphones, tablets, laptops, and “smart home” devices - people should nonetheless have the *option* to repair and continue to use their devices they already own. Unreasonable cost or difficulty of access to maintenance and repair; products designed not to last, including via software which reduces a product’s performance over time; as well as outright prevention of independent repairs by manufacturers create unacceptable barriers preventing people from being able to continue to use their products, even when they want to.

The “serialisation” of components within certain products, notably Apple iPhones, is an example of manufacturers actively preventing independent repair of their products.[19] Serialisation prevents the replacement of hardware even with identical parts made by the same manufacturer, by inhibiting functionality of that part unless the serial number of that component matches that which it originally was bought with.

It is inevitable that premature replacements of technological products will continue to occur at some degree, due to consumers choosing to purchase new items. Yet we believe it is important to address negative externalities created by manufacturers that actively promote a “disposable technology” culture. The development of a right to repair may play a role in discouraging technology companies from such practices, and motivate them to pursue other, more environmentally sustainable revenue models. The right to repair will also be essential in order to create a culture shift away from wasteful consumer habits. We cannot expect consumers to take part in a circular economy if the mechanisms and incentives are not in place for them to do so, or if the incentives are actively antithetical to a circular economy.

Innovation and DIY Culture

The ability to be able to take apart, tinker with, and learn about the technology we use everyday is a fundamental component of technological innovation. Many scientists and innovators begin their careers by engaging with DIY tech culture and interrogating not only how the machines we use in our everyday lives are built, but also how they can be improved and adapted for new use cases. For Australia to foster a culture of technological innovation, it is imperative to preserve the ability to repair and alter devices.

By monopolising repairs, technology manufacturers are creating additional barriers to careers and hobbies in technology, and in turn, the technological innovation that will drive Australia’s future economic growth in an increasingly tech-dominated world. The Australian

[19] As reported by The Guardian in ‘Tech giants to make Australia's phone repairers extinct, right-to-repair inquiry hears,’ March 2021, https://www.theguardian.com/australia-news/2021/mar/10/tech-giants-to-make-australias-phone-repairers-extinct-right-to-repair-inquiry-hears and, ‘Right to repair: it should be easier for Australians to get phones and devices fixed, review says’, June 2021, https://www.theguardian.com/australia-news/2021/jun/11/right-to-repair-it-should-be-easier-for-australians-to-get-phones-and-devices-fixed-review-says

government recognises the need to invest in digital skills, as shown by the commitment to a Digital Economy Strategy.[20] Digital skills and hardware skills are fundamentally intertwined, and the ability to take apart and fix hardware, as well as inspect its code, is a critical part of developing these skills necessary to build a future-proof economy. Proprietary machinery that deliberately obfuscates its components to ensure it cannot be repaired by third parties further abstracts the relationship between humans and the tools we use, which makes this educational journey much more difficult.

Conclusion

A right to repair is an essential component to the multifaceted challenge of ensuring good digital security for individuals, communities and Australia as a whole. It can also play an important role in mitigating the impacts of the digital divide and making technology products more readily accessible and affordable, foster technological innovation, as well combat the growing power of Big Tech companies in order to create better competition in the technology industry, and a viable secondary market.

While Australian consumer law is reasonably comprehensive, it needs to be clearer and easier to use. We also note that safeguards need to be in place to prevent the right to repair being used as a mechanism to avoid offering or otherwise making it difficult for consumers to be able to obtain a refund or a replacement for products where reasonable.

Our recommendations are as follows:

- Software should be included under consumer guarantees to ensure consumer devices are up to date, workable, secure and that consumer data is less likely to be vulnerable to interception or theft.
- Software should be repairable by consumers if or when the manufacturers are no longer willing to provide updates, repairs, or maintenance for the software included in their products.
- The development of a robust secondary market for repairable technological products should consider both the benefits of increased competition to counter abuses of market power from major manufacturers, *as well as* a mechanism to reduce Australia's digital divide, including accessibility and affordability.
- We support the inclusion of a prohibition on "warranty void" terms, including "do not open" stickers/warranty seals. These terms are misleading to consumers and create an unreasonable barrier to access repairs. Clear and simple warranty language should be a requirement so that people are able to understand what they can and cannot do with their technology products.
- The geographical challenges of Australia need to be considered, especially with regard to local skills and expertise, and the availability of spare parts. Parts which may be available in the US or the EU can be difficult to obtain in Australia, which can act as a barrier, even where access to independent repair options are made available. It is essential that Australia has the knowledge, capacity and material to repair and innovate, especially when global supply chains are disrupted, or skills cannot be brought in from overseas, as highlighted by the Covid-19 pandemic.

[20] Australia's Digital Economy Strategy, Prime Minister and Cabinet, 2021, https://digitaleconomy.pmc.gov.au/

- We support limiting manufacturer liability for defects or failures created by poor-quality independent repairs to offset some of the possible risk of manufacturers being liable for poor-quality repair jobs that were out of their control.
- We support reasonable changes to the Copyright Act to enable access to repair information such as repair manuals, as well as a “positive obligation” on manufacturers to make their repair information available.
- Australia should prioritise the environment—and, by extension, the ongoing wellbeing of our society and economy—and consider how the right to repair supports other existing initiatives to create a sustainable future, and minimise waste.

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