

The right to repair: obstacles in the current law

Introduction

The right to repair debate has been growing over the past several years around the world, focusing on both consumer protection and environmental concerns. New Zealand's government is considering right to repair legislation as part of the review of waste management legislation (The Ministry for the Environment "Taking responsibility for our waste: Proposals for a new waste strategy, Issues and options for new waste legislation" (October 2021)). The right to repair movement has emerged to address challenges faced by consumers regarding repair of purchased products due to lack of spare parts, tools or repair documentation. Right to repair measures enhance the property rights of the consumers over the purchased devices. The right to repair ideally requires manufacturers to provide diagnostic information, manuals, tools and spare parts (WasteMINZ's Product Stewardship Sector Group Right to Repair working group "Pathways for Right to Repair in Aotearoa New Zealand" (2020)). Some manufacturers' behaviours limit consumer rights. They employ various design strategies such as shorter lifespan of a product, limitation of third party repair, Technological Protection Measures (TPMs) and monopolisation of the spare parts and repair market (Joshua Turiel "Consumer Electronic Right to Repair Laws: Focusing on an Environmental Foundation" (2021) 45(2) William & Mary Environmental Law and Policy Review 579 at 589). A lack of repair opportunities leaves consumers with only the option of replacement, while discarding defective devices causes environmental issues. Most e-waste ends up in landfills where soil and water are contaminated by resultant toxins. The right to repair can be promoted to address both consumer issues and environmental problems (WasteMINZ "Pathways for Right to Repair in Aotearoa New Zealand"). A better right to repair can contribute to New Zealand's transition to a circular economy which encourages products and materials to be circulated at their highest value.

This article shows the legal obstacles in the current law that limit implementation of the right to repair measures in New Zealand. This article only focuses on consumer electronics and electrical appliances for non-commercial uses. It firstly examines some manufacturers' behaviours limiting consumer rights on purchased products and third party repairs, in the form of planned obsolescence, limitations on spare parts and repair manuals, and TPMs such as

software or digital lock. Then, a legal analysis is undertaken regarding how the existing law such as Consumer Guarantees Act 1993 and the Copyright Act 1994 hinders access to repair. The analysis shows that these laws fail to protect consumers' rights from the harmful practices adopted by some manufacturers. The article aims to identify legal barriers to promote the right to repair principle in New Zealand. The analysis on how law reform should be made to promote the right to repair concept is not covered by this article but a further article will address the issue.

Manufacturers' behaviours hinder repair of products

The repair of a product becomes complicated, costly or sometimes impossible due to the tactics of some manufacturers to maintain their market dominance. Firstly, some manufacturers employ a design strategy to ensure that the current version of a product will become obsolete or useless within a specific time. This strategy is a purposeful approach to ensure that the functionality of a product ceases within a specified time (Matteo Zallio and Damon Berry "Design and Planned Obsolescence. Theories and Approaches for Designing Enabling Technologies" (2017) 20 (1) *The Design Journal* S3749-S3761 at S3751). This is called planned obsolescence. A variety of consumer electronic products are frequently subjected to planned obsolescence. One example is AirPods designed with a limited lifespan of the battery. AirPods' batteries run out very quickly. To replace AirPods' tiny batteries, a unique vibrating knife is required. For many electronic devices, their designs often require special tools to replace the batteries. The design of modern electronics makes it difficult for consumers to repair their devices. Components of a product are glued together instead of screwed, making it difficult to replace a single component without damaging others (Aaron Perzanowski "Consumer Perceptions of the Right to Repair" (2020) 25 *Case Research Paper Series in Legal Studies Paper*). More importantly, some manufacturers often change design strategy, refuse repair parts and tools, and create marketing messages that skew consumer perceptions of what is desirable. These tactics show that manufacturers intend to force consumers to buy new products or undertake expensive repairs authorised by them. Some manufacturers have been accused of preferring replacement to repair for their company's profit bottom line.

Secondly, some manufacturers are controlling the repair industry by exploiting copyright through the establishment of ownership for spare parts and manuals (Aaron Perzanowski "Repair and Intellectual Property" in Aaron Perzanowski (ed) *The Right to Repair: Reclaiming*

the things we own (Cambridge University Press, 2021). Some manufacturers issue part numbers for each of the hundreds or thousands of components that comprise a sophisticated piece of machinery. The most effective way for third-party component vendors to express the compatibility of their parts with the original manufacturers' part numbers is to replicate or reference the manufacturers' part numbers. However, some manufacturers prevent anybody from using those numbers, claiming copyright. In addition to parts, some manufacturers' copyright claims in repair manuals make the repair of modern consumer electronics difficult while access to manuals is vital for device owners and third-party repair shops. Without the ability to access parts and manuals, consumers suffer increasing expenses and inconvenience.

Thirdly, some manufacturers control the products after sale by employing software. A variety of consumer electronics have embedded software components or digital locks that restrict the access to the products and thus limit the repair. This is called Technological Protection Measures (TPMs). In theory, TPMs are designed to give an extra layer of protection by allowing copyright owners more control over their content (Anthony D Rosborough "Unscrewing the Future: The Right to Repair and the Circumvention of Software TPMs in the EU" (2020) 11(1) *Journal of Intellectual Property, Information Technology and Electronic Commerce Law* 26). In essence, software code has a significant effect in the functioning, diagnosis and repair of modern consumer electronics. In order to access the products, PINs or passcodes are required to unlock such restrictions. However, copyright law allows manufacturers to refuse that code by conferring copyright protection to that code (Aaron Perzanowski "Repair and Intellectual Property"). Since the copyright extends to that code, consumers are limited in their access to repair. For instance, without Deere and Company (John Deere) proprietary software, it is impossible for farmers and independent repair shops to initiate the replacement of authentic parts. As a result, farmers need to pay hundreds of dollars to technicians authorized by John Deere. John Deere uses end-user license agreements (EULAs) to restrict nearly all repair and modification to farming machinery, including limitations on unauthorised repair of the products, disassembly, and the use of non-authorised parts (Matteo Zallio and Damon Berry). Therefore, farmers face not only software restrictions but also legal threats as to the repair of their tractors. Manufacturers increasingly claim that embedded software and other proprietary product code is exclusive, and refuse to disclose it (Daniel A. Hanley "Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair" (April 2020, Open Markets)). TPMs aim to limit non-authorised components or services. If third party components or services are used, TPMs may utterly

disable the device. In 2018, many iPhone users had experienced “Error 53” that stopped their iPhones from functioning. This error occurred when customers updated their iPhones after getting them repaired by third parties. As to many modern consumer electronics, it is impossible for consumers to repair their products unless the repair is performed by authorised service providers.

The practices of some manufacturers might be construed as the exclusive control over the repair market (Turiel). Consumers are fighting against the world’s powerful companies when they face legal impediments to repairing the products, accessing replacement parts and manuals, and bypassing digital lock on diagnostic software (Aaron Perzanowski). Manufacturers’ justifications for refusing spare parts, repair tools and manuals include the protection against poor quality repair, safety, security, and intellectual property rights (Matteo Zallio and Damon Berry).

The importance of the right to repair in addressing manufacturers’ behaviours

The right to repair movement has emerged to oppose the actions of some manufacturers limiting consumers’ rights over purchased products. The simple concept of the right to repair is that “you bought the product, so you own it, and you should have the right to repair it” (S Kyle Montello “The Right to Repair and the Corporate Stranglehold over the Consumer: Profits over People” (2020) 22 Tulane Journal of Technology and Intellectual Property 165). The right to repair requires manufacturers to provide diagnostic information, tools, manuals and spare parts (WasteMINZ). In essence, right to repair measures can foster competition in the aftermarket, by making repair more affordable (WasteMINZ). According to proponents of the right to repair, some manufacturers’ actions are anti-competitive and infringe the consumer rights (Montello). Apple Inc and John Deere have been accused of these anti-competitive actions. After a lot of pressure from government, academia and environmental activists, Apple Inc has announced that a self-service repair programme will launch in the US this year (in 2022) and then will be expanding to other countries. Under the programme, consumers and third parties will be able to purchase parts and tools directly from Apple to complete their own repair for iPhone 12 and iPhone 13 (Newsroom “Apple announces self-service repair” (Press release, 18 November 2021)< <https://www.apple.com/nz/newsroom/2021/11/apple-announces-self-service-repair/>>).

The shortcomings of consumer guarantees law in protecting consumers who are affected by manufacturers' behaviours

In New Zealand's current legal framework, the first step to promoting the right to repair concept from a consumer right perspective could be changes to the Consumer Guarantees Act 1993 (the CGA). The CGA establishes a regime of rights and remedies for consumers when purchased products fail to meet the baseline guarantees (Parts 2 and 3). The overall purpose of the CGA is to ensure that consumers have certain guarantees such as acceptable quality, correspondence with description and fitness for particular purposes when they purchase goods from a supplier in trade (s 1A and Part 1). The CGA can be an avenue to promote the right to repair concept by providing certain protections to consumers and influencing marketplace behaviours. However, some limitations exist in the CGA, which we can usefully examine.

One of the limitations of the CGA is that there is a loophole in manufacturers' obligations in respect of repair and spare parts. Section 12 requires manufacturers to comply with guarantee requirements as to repair and spare parts. Regardless of price, manufacturers are required to provide repair facilities and spare parts for a reasonable period of time after they supply the goods to consumers. The definition of the "manufacturers" involves the importer or distributor of products manufactured outside of New Zealand where the foreign manufacturer does not have an ordinary place of business in New Zealand (s 2(1)). A manufacturer who fails to provide spare parts and repair facilities is liable for the failure to respect the guarantee in s 12. However, the CGA does not define how long spare parts and repair facilities should be provided. The idea of "reasonableness" is applied to the guarantee of spare parts and repair facilities, which results in uncertainty of the duration of the availability of spare parts and repair facilities. Section 12 has substantial implications for the right to repair measures, but the requirement it imposes is undermined by s 42, which allows manufacturers to take reasonable action to notify purchasers about the unavailability of spare parts or repair facilities at the point of the sale. Manufacturers will not be liable if they inform consumers that there will be no spare parts available or repair facilities. The exception imposed by s 42 permits manufacturers to limit repairs of the products they sold. In order to promote the right to repair concept, this exception should be removed.

Another barrier is a lack of clarity on warranty rights and guarantees. In essence, the CGA does not provide certainty on how long the product should last to satisfy the guarantees of

“acceptable quality” that is at the centre of the consumers guarantees. Section 6 provides that the goods must be of “acceptable quality” when they are supplied to a consumer. The durability of the goods available to a consumer is encompassed under the meaning of “acceptable quality” (s 7(1)(e)). The durability is related to what is a reasonable time for a product to remain durable (Kate Tokeley “Defective Goods and Services” in Kate Tokeley (ed) *Consumer Law in New Zealand* (LexisNexis, Wellington, 2014) 39). However, there is uncertainty on what constitutes reasonable durability for products because the CGA does not define it (Tokeley). Furthermore, the CGA leaves uncertainty as to whether consumers are entitled to claim for remedies including repair. If a product fails to meet the applicable guarantees of the acceptable quality test, the original customer or anybody who buys goods from that original customer has the right to redress against the supplier (s 16). The burden of proof lies on the consumer but the critical point is that the consumer must return the defective products to the supplier to remedy them within a reasonable period of time (s 18(2)). While “reasonable time” is defined in s 20(2) in respect to the right to reject goods, the CGA does not specify it in terms of other remedies such as replacement, repair and refund. Due to this uncertainty, consumers will be confronted with more difficult evidentiary challenges, especially in the case where the defect in the product appears after several years. In respect of the right to repair, certain guarantees of how long the product will last and the duration of the statutory guarantees to redress against the suppliers are critical. The CGA should ensure that consumers can obtain these guarantees. To fully implement right to repair measures, the CGA should incentivise the repair remedy. While the CGA provides suppliers the right to choose remedy methods specified in s 19, they often rely on replacement rather than repair. The replacement culture can lead to e-waste problems. The CGA should incentivise repair, taking into account not just consumer protections but also environmental concerns.

There is also a limitation imposed by the CGA on undertaking third party repairs. Manufacturers or suppliers often employ service agreements by including conditions clauses that limit warranties or restrict consumer rights. These clauses normally state that the warranties are void if unauthorised repairs or modifications and non-authorised components are detected (Nicholas A Mirr “Defending the Right to Repair: An Argument for Federal Legislation Guaranteeing the Right to Repair” (2020) 105 (5) *Iowa L Rev* 2393). Under the CGA, suppliers cannot contract out of their obligations relating to guarantees for the products and services they offered (s 43). However, there is a rule that allows suppliers to get out of their obligations; consumers are required to give the opportunity to suppliers to remedy a defective

product before undertaking non-authorized repair (s 18(2)(b)). If the repair is refused by a supplier, a consumer can have the failure repaired through a third party and then recover the reasonable repair costs from the supplier. This rule was affirmed by *Acquired Holdings Ltd v Turvey* (2008) 8 NZBLC 102 where the High Court prevented Turvey from recovering the repair costs from the original supplier when Mr Turvey filed a counterclaim under s 18 of the CGA to seek the costs incurred in repairing the car through a third party repairer. The justification was that Turvey had failed to give the supplier an opportunity to remedy the vehicle's defect before the work was done. The policy reason for this rule is to ensure that the supplier has an opportunity to identify the defect in the goods and remedy it in the most cost-efficient way possible (Tokeley). Although non-authorized repairs do not terminate the right to a remedy, this requirement can cause some deserving consumers who are unaware of it losing their remedies. This legal barrier exacerbates some practices of manufacturers of limiting third party repair through warranty contracts that limit unauthorized repairs. As to the right to repair, the CGA should ensure that suppliers have responsibilities during the statutory guarantee period whether the repair is undertaken by their representatives or third parties.

Therefore, the CGA produces uncertainties and flaws making sure that consumers know what they can do with their products. Consumers find it difficult to determine whether defects amount to a breach of the guarantees due to not being durable products (Tokeley). According to the 2018 New Zealand Consumer Survey, 75% of customers could not identify whether a broken refrigerator must be repaired after the expiry of the manufacturer's 12-month warranty period and whether it is still within the product's reasonable lifespan imposed by the CGA (Consumer Protection "New Zealand Consumer Survey 2018" (May, 2019)). Some suppliers exploit shortcomings of the CGA; some retailers even charge the customer an additional fee before returning the product to the manufacturer for inspection and repairs. Legal uncertainties prevent the emergence of a culture of repair, and reduce competition in the repair market. These impediments to access to repair should be removed to protect consumers.

Copyright law limits what consumers can do with their products

Nowadays, many consumer electronic products contain copyrighted content due to the incorporation of software and technological protection measures. (Leah Chan Grinvald and Ofer Tur-Sinai "Intellectual Property Law and the Right to Repair" (2019) 88(1) *Fordham Law Review* 63). Some manufacturers are using copyright protection to make it more difficult for

consumers to repair their products (Grinvald and Tur-Sinai). While copyright law is generally unlikely to apply to consumer matters that do not fall within the traditional categories of copyrightable subject matters such as musical, sound recording, pictorial or literary works, copyright has become a consumer regulation issue since digital technologies have developed (Ministry of Business, Innovation & Employment (MBIE) “Issues Paper: Review of Copyright Act 1994” (2018)). Without the permission of the original manufacturers or software developers, engaging in repair activities may infringe on copyright (Grinvald and Tur-Sinai). There are several ways in which New Zealand’s copyright law favours manufacturers.

Firstly, the Copyright Act 1994 prohibits the circumvention of Technological Protection Measures (TPMs); the copyright owners can take action against any conduct that leads to the circumvention of a TPM work. A TPM work means a copyright work that is protected by a TPM and the legal definition of TPM is “any process, treatment, mechanism, device, or system that in the normal course of its operation prevents or inhibits the infringement of copyright in a TPM work” (Copyright Act, s 226). This encompasses software or digital locks used to prevent unauthorised copying or accessing copyrighted works. Section 226A sets out that:

- (1) A person (A) must not make, import, sell, distribute, let for hire, offer or expose for sale or hire, or advertise for sale or hire, a TPM circumvention device that applies to a technological protection measure if A knows or has reason to believe that it will, or is likely to, be used to infringe copyright in a TPM work.
- (2) A person (A) must not provide a service to another person (B) if—
 - (a) A intends the service to enable or assist B to circumvent a technological protection measure; and
 - (b) A knows or has reason to believe that the service will, or is likely to, be used to infringe copyright in a TPM work.
- (3) A person (A) must not publish information enabling or assisting another person to circumvent a technological protection measure if A intends that the information will be used to infringe copyright in a TPM work.

On a reading of section 226A, it might be illegal for third parties to employ a TPM circumvention device, distribute software tools such as restoration disks, and share the repair information that will be used to circumvent a TPM. Consumers can request a qualified person to circumvent the TPM by using a TPM circumvention device, but only if the copyright owner has refused or failed to respond to the request within a reasonable time (s 226E(2)(b)). While there are certain exceptions to the TPM circumvention (s 226E), the Act is silent on the repair of the products protected by TPMs. According to MBIE, there have been no cases tested before the Courts related to infringement in TPM work (Ministry of Business, Innovation &

Employment (MBIE) “Issues Paper: Review of Copyright Act 1994” (2018)). The TPM circumvention provision obstructs the exercise of other legal rights such as personal property rights and fair dealing exceptions.

Secondly, repair of software-enabled products requires copying of the software, the codes and the information, and anyone attempting to do so may violate the copyright of the software owner (Turiet). The definition of “copying” in s 2 of the Copyright Act includes “reproducing, recording, or storing the work in any material form (including any digital format), in any medium and by any means”. The three elements of reproduction were established in *Wham-O Manufacturing Co v Lincoln Industries Ltd* [1984] 1 NZLR 641. Firstly, the reproduction must be either of the entire work or a substantial part. Secondly, there must be sufficient objective similarity between the infringing work and the copyrighted work or a substantial part thereof. Thirdly, there must be some causal connection between the copyrighted work and the infringed work; the copyright must be the source from which the infringing work is derived. Applying these elements, the repair activities that undertake copying the copyrighted software, codes or information may lead to infringement. While the Copyright Act does not define software or computer programs, it allows certain copying or adapting computer program for lawful use. This entails lawful use of (i) decompiling programs to obtain information to allow the writing of an independent program that can interface with the decompiled program, (ii) correcting an error in the program and (iii) running a program to determine the ideas which underlies any program element (ss 80A to 80C). These exceptions are narrow and it is uncertain whether they cover repair activities. To promote the right to repair concept, the Copyright Act should allow consumers and third parties to reproduce and share information for repair purposes without the permission of the copyright owners. For this purpose, repair should be constituted as “fair use” under the fair dealing exception rules.

The Copyright Act benefits manufacturers by granting exclusive rights to products containing copyrighted software. While the Act acknowledges that copyright owners can use contract law to prevent users from taking advantage of the exceptions, some manufacturers or copyright owners are increasingly misusing their exclusive rights by employing service agreements or EULAs that limit the warranties or restrict the third party repair (Turiet). Repair-inclined consumers and third party repair shops will find that not only is the repair of products difficult, but also it may be illegal. In terms of the right to repair measures, new fair dealing exceptions for repair purposes should be established in the Copyright Act to allow consumers and third

parties to legally obtain tools to access repair information that is presently hidden behind TPMs and to reproduce and distribute repair information.

Recommendations and Conclusions

Where manufacturers refuse to provide spare parts, repair tools, manuals and diagnostic software, control the repair market, monopolise spare parts market and rely on copyright, they seek to obtain revenue beyond the initial sale of their goods, to the detriment of consumers and the environment. This article shows that the current consumer law fails to protect consumers from the harmful effects of manufacturers' practices, thereby creating obstacles in promoting the right to repair. Planned obsolescence, the limitations on third party repair, and technological protection measures force consumers to opt for the replacement culture rather than repair. These practices lead to environmental problems, particularly e-waste. However, environmental implications do not appear to be a factor in the current consumer law. The right to repair is a valuable tool for extending products' lives and reducing the amount of e-waste. In general, the concept of the right to repair is that manufacturers are obliged to provide diagnostic information, manuals, tools and spare parts.

To promote right to repair measures, changes to the Consumer Guarantees Act 1993 (the CGA) and the Copyright Act 1994 are necessary. The CGA must ensure that the ability to repair remains a remedy option; it should establish a mandatory guarantee of spare parts and repair facilities. Section 42 of the CGA that allows manufacturers to avoid obligations to provide spare parts and repair facilities should be removed. To provide certainty to consumers, it is also necessary to clarify the duration of the statutory guarantees to redress against the suppliers and what constitutes reasonable availability of spare parts and repair facilities. In addition, the CGA needs to ensure that it does not impose limitations on third party repair, so it should require manufacturers or suppliers to be responsible during the statutory guarantee period whether the repair is undertaken by their representatives or third parties. The CGA can be an avenue to incentivise the repair remedy, and so can the Copyright Act. Repair barriers posed under the Copyright Act should be addressed to allow consumers and third parties to share copyright information and to obtain tools needed to access repair information that is presently hidden behind TPMs. New fair dealing exceptions for repair purposes should be introduced, allowing consumers and third parties to reproduce and distribute copyright information, and circumvent

TPMs if doing so is considered “fair”. To fully implement the right to repair, New Zealand needs to ensure the existing legal framework does not pose any barriers.