## Our Essential Right to Repair

The right to repair is defined as the consumers freedom to either repair their own devices instead of going through the manufacturer [1], this has been a disputed topic since the 1990s and has recently become more complicated due to the increasing complexity of electronic devices and attached software. The concept originally appeared in the automotive industry in the U.S. where the first law related to the concept was passed, allowing any repair shop to have access to manufacturers' documents so they have the knowledge required to repair any vehicle. Soon after, this law was considered in many more products and industries than the automotive industry [2]. It is argued that ownership of a device after purchase should allow repair and modifications but to what extent this level of control should be allowed.

If a consumer has the skills and access to components to repair their devices, they should have the right to successfully fix their own devices without voiding warranty. Equally, if the consumer damages the product further, companies should have the right to void the warranty. Successful home repairs improve the lifespan of the product while saving resources for both parties, and teaching consumers practical skills. Websites such as IFIXIT [3] show users complete teardowns of many consumer items, advising users how to perform their own repairs. IFIXIT is also vocal about changing the rules of right to repair, claiming "repair is better than recycling, repair saves money, repair teaches engineering, and repair saves the planet" [4].

Companies claim the right to repair infringes on intellectual property rights, risks consumer safety and liability. It is probable that profit is the main motivating factor, which companies would deny. However, individuals wishing to counterfeit or copy the hardware of a device do not gain any more information from repair websites than the information they can discover from taking apart the device themselves. Thus, repair resources may not prevent intellectual property violations.

There are numerous cases where the lack of a right to repair has caused public outrage. In 2012 Nikon was able to gain a monopoly over the repair of their products by stopping the supply of repair parts to independent retailers, reasoning it was to "deliver the best service experience to the customer" [5]. This crowds out small repair businesses and increases the price of repair paid by consumers while removing their right of ownership. In 2016 Apple started sending "Error 53" messages to any iPhone that had a replaced screen or touch ID, the error made the phone unusable [6] with the reason that it would protect the hardware from exploitation. The court declared "the fact that an iPhone or iPad had been repaired by someone other than Apple did not... result in the consumer guarantees ceasing to apply, or the consumer's right to a remedy being extinguished". In 2019, Sonos offered a 'trade-up' program which started a 21-day timer where in it would offer a 30% discount on an upgraded device. Upon finishing the countdown, the old device would be permanently deactivated for disposal [7]. This forces consumption while wasting perfectly functioning products that new devices should ideally be designed to be backwards compatible with.

Companies are alleged to incorporate planned obsolescence into their designs, this is the term used to describe a company designing their product to only last a limited lifetime before breaking, forcing the buyer to have to upgrade to a newer product. This type of design ensures companies sustain sales of new products into the future but, this is unsustainable behaviour as the manufacture of devices counts as approximately 70% of CO2 emissions for digital devices [8].

There is an issue with consumers modifying the hardware of their devices, as it can lead to illegal exploitations in the software. One example of this is rooting mobile phone devices or games consoles, allowing the user to have special access allowing access to priced software for free or gain unfair advantages. However, hacking and exploiting security by very skilled individuals is inevitable and will happen regardless of people being allowed the right of repair/modify, consequently it's difficult to see the applicability of this argument in relation to security and the consumers' right to repair. It is difficult to distinct between whether a modification is or is not for exploitative gain, but where it is possible exploitative activity can continue to be recognised through improving digital right management and tracking suspicious online activity [9]. In these cases, manufacturers should have the right to decline the repair of a device sent to them where they have detected hacking taking place on said device.

Regarding safety concerns, consumers should also take on liability if they break their products or endanger themselves, this allows people to weigh up the risk of repairing the products themselves against the option of paying someone else to do it. To completely lower the risk of a repair going wrong companies should give as much information on how to do repairs properly and safely, this combined with already existing internet repair resources should be enough to allow people to perform successful repairs if they are able to safely and at only their own risk. Otherwise, when the repair of a product is considered to be dangerous, such as household appliances, hydraulic machinery, specialist and manufacturer repairs exist. As with companies, they can choose to rely on these services to reduce endangering staff and most often will.

It is true that companies rely on repair contracts to maintain a source of steady income, as they specialise in complex equipment. In these circumstances they are regularly paid over a fixed term and are exclusively obliged to fix their products. Therefore, the context and type of product dictates if it should be allowed to be repaired by consumers. The majority of these instances fall between business to business arrangements and the terms of these agreements can be decided in negotiations.

From the previous examples it seems that even though we pay for these products, consumers do not have full control of them, applying this concept to anything else would seem crazy so why does it seem to be commonplace with technology. This argument of ownership can also be seen in the digital distribution of the movies, music and games, in most cases when you purchase a product you are purchasing the right to download and use that product, but if the item is removed from their digital stores, you will be unable to download it again even though you have paid for it. [10]

From 2021 in the European union, the new standard means that appliances must become longer lasting, and the company's manufacturing them must be able to supply spare parts for up to 10 years, although the repairs will still have to be done by professionals [11], this is a step in the right direction. Companies generally have been allowed to dictate their own rules on rights to repair and have been unopposed for some time. This is due to a lack of existing laws for a recent concept that regulating agencies and governments don't properly understand the need for yet.

By purchasing electronic goods, consumers should have complete control over their devices and be able to do what they want at their own risk. While company to company terms and conditions can be decided during negotiations. Public consumers should have the right to repair without risk of voiding the warranty when done correctly and safely, ensuring longer product lifetimes, less resource wastage, while ensuring the consumers control and ownership.

## References

- [1] Tech Target [2019]," Right to repair electronics" [online]. Available: https://searcherp.techtarget.com/definition/right-to-repair-electronics
- [2] The Atlantic [2014]," You gotta fight for your right to repair" [online]. Available: <a href="https://www.theatlantic.com/technology/archive/2014/02/you-gotta-fight-for-your-right-to-repair-your-car/283791/">https://www.theatlantic.com/technology/archive/2014/02/you-gotta-fight-for-your-right-to-repair-your-car/283791/</a>
- [3] IFIXIT [2020], "Homepage" [online]. Available: https://www.ifixit.com/
- [4] IFIXIT [2020], "Manifesto" [online]. Available: https://www.ifixit.com/Manifesto
- [5] DPreview [2012]," Nikon cuts out independent service companies" [online]. Available: https://www.dpreview.com/articles/4314058201/nikon-cuts-out-independent-service-companies
- [6] CNET [2018]," Apple bricked..." [online]. Available: <a href="https://www.cnet.com/news/apple-bricked-our-phones-with-error-53-now-it-owes-6-8-million-in-australia/">https://www.cnet.com/news/apple-bricked-our-phones-with-error-53-now-it-owes-6-8-million-in-australia/</a>
- [7] The Verge [2019], "Sonos explains why it bricks old devices with 'Recycle Mode'" [online]. Available: <a href="https://www.theverge.com/2019/12/30/21042871/sonos-recycle-mode-trade-up-program-controversy">https://www.theverge.com/2019/12/30/21042871/sonos-recycle-mode-trade-up-program-controversy</a>
- [8] Tecnologialiberdeconflicto [2020] "Environment" [online]. Available: https://www.tecnologialibredeconflicto.org/en/environment/
- [9] Tech Target [2009] "Digital rights management" [online]. Available: https://searchcio.techtarget.com/definition/digital-rights-management
- [10] ZDNet [2011] "who owns your digital downloads..." [online]. Available: <a href="https://www.zdnet.com/article/who-owns-your-digital-downloads-hint-its-not-you/">https://www.zdnet.com/article/who-owns-your-digital-downloads-hint-its-not-you/</a>
- [11] BBC [2019] "EU Brings in 'right to repair' rules for appliances [online]. Available: https://www.bbc.co.uk/news/business-49884827