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Should the existing Right to Repair Legislation be extended to cover more products within the UK?

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Abstract (202 words)

The aim of this research was to investigate if the existing Right to Repair legislation could be extended within the UK. Before moving on to this, users are introduced to the benefits and drawbacks of having such legislation. This is because the current legislation, "Ecodesign for Energy-Related Products and Energy Information Regulations 2021" (EERPEIR), does not address key areas for it to be considered a Right to Repair legislation. Both sides of argument were discussed so that readers could make a judgement of their own and to reduce the amount of bias, as found in most other sources. Implication on the environment, individuals' health, knowledge, freedom and on our market, were all taken into consideration. A key aspect of the research was to explore if there were any alternative routes to achieving the same benefits without relying on an extended Right to Repair legislation. The conclusion sums up that the current Right to Repair legislation should be extended within the UK as the advantages out weighted the disadvantages. For example, Right to Repair would financially save consumers money, protect consumers freedom, help to restore our planet, create a much diverse and competitive market, provide a form of free education and much more.

Introduction (1,073 words, excluding footnotes/ endnotes)

Should the existing Right to Repair Legislation be extended to cover more products within the UK?

I have chosen this project title for several reasons, one of which is that it relates to my field of study, Information Technology and the sector which I'm looking forward to being a part of. Before deciding upon my project title, I had prior knowledge on Right to Repair due to consumption of discussions surrounding technology and electronic gadgets on social media platforms. But majority of the information which I was exposed to seemed bias and failed to address manufacturers point of view to Right to Repair as a legislation. Due to this imbalance in information, I decided upon Right to Repair as a EPQ project title to investigate further. So, that I could make a judgement of my own, using information from both consumers and manufacturers.

Additionally, this project title aligned with my personal interests in building environmentally friendly solutions through technology in order to take better care of our environment.

What is the Right to Repair?

Right to repair means having the freedom to repair the goods you own, when you want and how you want. Currently, owners of electronic goods do not have the right to repair their own equipment. Whenever the item gets damaged or broken, the only resolution to this scenario will be, either go to the wholesaler or the manufacturer that sold the item to you in the first place, seek assistance from repair shops or just purchase a completely new device. Note how the possible routes to resolve these types of scenarios excludes the ability to repair the device yourself. This is aided by the fact that manufacturers and big tech companies cleverly implant obstacles to limit owners' freedom. Some of the known notorious tactics include gluing components together¹, increasing repairing fees and time, launching more affordable or advance products frequently to ensure purchasing a newer model is more attractive than getting one repaired, using End-user licence agreements to penalise owners for attempt to repair their devices², refusing to provide spare parts to owners and independent repair shops and by refusing to disclose necessary information to fulfil repairs.

The Right to Repair movement has increasingly pressured manufactures and companies to act upon consumers demands. One of which include disclosing sufficient information to consumers to make D-I-Y (Do It Yourself) repairs possible, in the form of repair booklet or videos, repair manuals, etc.³

¹ 'Right to Repair Fights Electronic Manufacturers to Blocking Fix It Opportunities' (2021) Waste360 [Online], 01 Dec, NA, available: https://link.gale.com/apps/doc/A684420196/GPS?u=scc_jisc&sid=bookmark-GPS&xid=5b5cc7e3 [accessed 14 march 2022].

² The punishment usually results with the owner getting their warranty voided for attempting to repair their device from anyone apart from the manufacturers and their partners.

Mirr, N.A. (2020) 'Defending the Right to Repair: An Argument for Federal Legislation Guaranteeing the Right to Repair', Iowa Law Review, 105(5), 2393+, available: https://link.gale.com/apps/doc/A634680439/GPS?u=scc_jisc&sid=bookmark-GPS&xid=e1fddc95 [accessed 12 March 2022].

³ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.3. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021]

Whilst also making spare parts and tools available.⁴ Currently, such resources are unavailable due to concerns over security of devices.⁵ Therefore, with consumers unable to exercise their rights by repairing their rightfully owned goods, growing concerns are raised over the way we treat our environment and other's around us.

Right to Repair legislation may not make a substantial difference in everyone's life, as in order to proceed with the repairs individuals will require obtaining background technical knowledge and experiences. Also, repairers will be required to take responsibility for their actions during instances where things don't go as planned. For these reasons, D-I-Y repairs which the legislation advocates for, is less likely to be useful for such consumers. As they may prefer to save time, effort and to assign the responsibility to authorised repairers. But the legislation will at least make D-I-Y repairs an option.

Right to Repair is important as in most cases it is much cheaper for consumers to repair or modify products instead of purchasing a completely new unit. Making such eco-conscious decision benefits the environment and attempts to reduce the amount of e-waste being sent to landfills. The impact of this decision can even go as far as saving lives, especially of those living near waste disposal sites as components in electronics such as the batteries contain toxic chemical which contaminate its surrounding areas.

What is the “Ecodesign for Energy- Related Products and Energy Information Regulations 2021” (EERPEIR)?

The UK attempted to address Right to Repair through their legislation, Ecodesign for Energy- Related Products and Energy Information Regulations 2021 (EERPEIR). The approach taken by this legislation is very similar to an effective Right to Repair. For example, the legislation, aims to address the repairability and longevity of white goods like washing machines and even TV screens.⁶ This is achieved by ensuring that the manufacturer makes available spare parts for up to 10 years for consumers and professionals to perform repairs.⁷

This document will discuss whether the current “Ecodesign for Energy- Related Products and Energy Information Regulations 2021” (EERPEIR) as a form of Right to Repair legislation, requires an extension to cover more products within the UK. To effectively respond to the project title, the 3 objectives mentioned below will be answered in a chronological order. Throughout the document

⁴ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.3. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021]

⁵ Louis Rossmann., 2020. GANGSTER right to repair Testimony by Tarah Wheeler of Securepairs. 25 January. Available at: YouTube. <https://www.youtube.com/watch?v=xiGE3paw5WQ> (Accessed: 9 April 2022)

⁶ Conway, L., 2021. Right to Repair Regulations. House of Commons Library, [online]. Available at: <<https://commonslibrary.parliament.uk/research-briefings/cbp-9302/>> [Accessed 1 March 2022].

⁷ Espiner, T. and Wearn, R., 2021. Right to repair rules will extend lifespan of products, government says. [online] BBC News. Available at: <<https://www.bbc.co.uk/news/business-57665593>> [Accessed 3 April 2022].

for and against arguments towards an effective Right to Repair legislation will be discussed using information from a wide range of sources.

- **What would the Implications be of having an extended Right to Repair legislation, on individuals, businesses and the UK as a whole?**
- **How can the extended Right to Repair legislation be better regulated within the UK?**
- **Are there any alternative routes, instead of relying on an extended “Right to Repair legislation, within the UK?**

Literature Review (2,877 words, excluding footnotes/ endnotes)

Introduction:

The research was conducted using Primary source and secondary sources. Including sources such as testimonies in American courts in the format of videos, academic journals, online articles, magazines, government legislation papers etc. I started of my research by looking into Right to Repair as a whole, so that my readers could better understand what it is and its implications if implemented as a legislation. These implications were categorised into identified themes of Right to Repair such as environment, health, etc., through information from sources.

Why is an effective Right to Repair important for the UK?

Today, manufacturers divert their effort and energy in build new products from scratch, instead of recycling and re-collecting precious natural materials from pre-existing devices.⁸ This can be associated with the existence of cheap labour such as sweatshops, in underdeveloped countries such as China. Using planned obsolescence as a business strategy shifts the blame of producing e-waste upon consumers, for not making sustainable decisions, even though manufacturers purposely produce products with a shorter lifespan.⁹ Planned obsolescence is extremely lucrative as consumers get repeatedly encouraged to replace their current model with a newly released version.¹⁰

Producing resources to facilitate repairs is believed to be extremely time consuming and expensive meaning that it will be unattractive and unprofitable for manufacturers to be compliant with a Right to Repair legislation. This has been evident through their efforts in restlessly defending their tactics and actions.¹¹

⁸ Sullivan, J., 2014. Trash or Treasure: Global Trade and the Accumulation of E-Waste in Lagos, Nigeria. [online] Africa Today, 61(1), 89+. Available at:

<https://go.gale.com/ps/i.do?id=GALE%7CA386919520&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=00019887&p=AONE&sw=w&userGroupName=scc_jisc> [Accessed 5 January 2022]

⁹ Planned obsolescence is when businesses deliberately reduce the lifespan of the device in a bid to encourage consumers to purchase.

Hernandez, Ricardo J., Constanza Miranda, and Julian Goñi., 2020. "Empowering Sustainable Consumption by Giving Back to Consumers the 'Right to Repair'". [online] MDPI. Available at:

<<https://doi.org/10.3390/su12030850>> [Accessed 30 March 2022]

¹⁰ Planned obsolescence is when businesses deliberately reduce the lifespan of the device in a bid to encourage consumers to purchase.

Hernandez, Ricardo J., Constanza Miranda, and Julian Goñi., 2020. "Empowering Sustainable Consumption by Giving Back to Consumers the 'Right to Repair'". [online] MDPI. Available at:

<<https://doi.org/10.3390/su12030850>> [Accessed 30 March 2022]

¹¹ SPEIGHT, A., 2021. The UK's right to repair law already needs repairing. [online] WIRED UK. Available at: <<https://www.wired.co.uk/article/right-to-repair-uk>> [Accessed 8 March 2022].

Creditability: Green Alliance is a charity focused on advocating for environmental solutions within the UK. Libby Peake, one of the authors is head of resource policy, has years of experience as editor of several publications and hold related degrees from well-respected universities. This was the most useful source in address the issues with the "Ecodesign for Energy- Related Products and Energy Information Regulations 2021" legislation. Apart from just critising governments decisions in legislation, it justified possible areas of improvements, such as the fact that VAT could be removed to decrease the price of repairs, in order to make them more attractive. Viewpoint on Right to Repair from the companies representatives has appeared in several other publications which I had collected. The source inspired me to further investigate factual data such as the amount of e-waste UK produces.

Manufacturers and companies offering repairing services they enable themselves to maintain control of their device after sales.¹² Whilst, also ensuring that manufacturers are generating revenue from not just the sale of the devices but also through after-market sales such as repairing services.¹³

Repairing services from the manufactures or companies such as Apple's "AppleCare", take between 6-8 days or as little as one day, to complete repairs. These timings could otherwise be reduced if the repairs were performed by the consumers themselves.¹⁴

Although, this issue has originated in America, it has been affecting both businesses and individuals across the world. Having the right to repair will provide buyers with the freedom that they need and will help to decrease the overwhelming control that companies like Apple have on their customers. It will also help to ensure that we are doing more in the fight to protect the environment. For example, e-waste contributes to air pollution, water pollution and soil contamination.¹⁵ Most of the electronic goods found in homes of people from developed countries such as the UK, will eventually end up in landfills sites. With most landfills' sites being present in poor geographic areas, it will be the developing countries that will suffer from the consequences of our selfish actions.¹⁶ With

¹² HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.10. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

Credibility: The report is produced by Open Markets Institute, an independent non-profit organisation which addresses issues and ideologies of corporations that dominate the American market. The findings are sourced from secondary research (research made from others) and constructed by well-educated authors that share interest in the field which the article relates to. The organisation relies on donations from people and other charitable foundations, instead of relying on companies which they argue against in their academic journals. This academic journal was the most informative and was widely used throughout the dissertation. The areas covered within it were broad such as the environment, individuals' well-being, consumers finances, etc., which informed me to differentiate information based on these themes. It was also, one of the first sources that I came across. Although, the factual information was in consideration to the American audiences and market, it influenced me to conduct research into some of the known themes regarding Right to Repair in order to obtain statistics and factual information. The author mentioned a fascinating piece of information which is that repairs will lead to individuals gaining a form of free education. Therefore, providing me with adequate mostly for arguments.

¹³ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.10. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

¹⁴ iPhone Repair and Service. Apple. Available at: <<https://support.apple.com/en-gb/iphone/repair/service/>> [Accessed 29 March 2022].

Credibility: This is a webpage on the Apple website, no indication about the author nether the date of when it was written is known. The webpage provides details on its repairing services particular on their collection of smartphones. The factual data which covers the pricing of its repairing services was criticised in the discussion, when discussing about how repairing fees are high and unattractive.

¹⁵ Sullivan, J., 2014. Trash or Treasure: Global Trade and the Accumulation of E-Waste in Lagos, Nigeria. Africa Today, [online], 61(1), 89+, p.108. Available at: <https://go.gale.com/ps/i.do?id=GALE%7CA386919520&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=0019887&p=AONE&sw=w&userGroupName=scc_jisc> [Accessed 5 January 2022]

¹⁶ "The UK is one of the largest exporters of electronic waste in the world. Some researchers think we send the equivalent of 40% of the electronic waste we collect overseas." The UK exports between 32,000 to 209,000 tonnes Of E-waste illegally to underdeveloped countries such as "Nigeria, Ghana and India" instead of processing it in recycling facilities.

landfills sites creating problem like air pollution due to the electronic devices often being burned as a way of getting rid of waste or for the means of collecting valuable natural resources like metal. This is known to release toxic gases or chemicals into the atmosphere. Chemical in electronic goods such as mercury have known to cause problems in the Kidney.¹⁷

Repairing services are extremely expensive for average consumers with 65% claiming that they are unable to afford repairing services and as a result choose to avoid them.¹⁸ Reducing or removing the amount of VAT charged on repairs of electrical appliances can make repairs more attractive for consumers.¹⁹

Why would “Ecodesign for Energy- Related Products and Energy Information Regulations 2021” (EERPEIR) be inefficient?

Many argue against the “Ecodesign for Energy- Related Products and Energy Information Regulations 2021” (EERPEIR), claiming that it should cover a wide range of consumer electronic such as smart

House of Commons Environmental Audit Committee. (2020) Electronic Waste and the Circular Economy. 26 November. Available at: <https://committees.parliament.uk/publications/3675/documents/35777/default/> (Accessed: 29 March 2022)

Credibility: The Environmental Audit Committee is appointed by the House of Commons and evaluates policies and programmes and the impact that they have on the environment. With the goal to encourage sustainable solutions and development. The source included statistics such as the measurement of e-waste we send to developing countries. The source provided fascinating new pieces of information like, Most of UK's waste gets exported illegally to developing countries like India, as I believed that the countries involved will only be within the African continent.

¹⁷ Alabi, O.A., Adeoluwa, Y.M., Huo, X., Xu, X. and Bakare, A.A. (2021) 'Environmental contamination and public health effects of electronic waste: an overview', Journal of Environmental Health Science and Engineering, 21 Apr, NA, available: https://link.gale.com/apps/doc/A659317987/GPS?u=scc_jisc&sid=bookmark-GPS&xid=19cc3b4d [accessed 17 March 2022].

Credibility: The article is sourced from Gale Database which is mostly used by academic researchers and contains academic journals. The authors have an academic background, with one of the authors being a researcher and lecturer. They have demonstrated their background in science with other similar publications concerning landfills. The publication company exist for profit and charges authors in order to publish their articles. The academic journal reviews researches that have been undertaken to access health effects caused by contamination from landfills sites.

¹⁸ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.15. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

¹⁹ Green Alliance Blog, 2021. The UK's new 'right to repair' is not a right to repair. [online] Inside track. Available at: <<https://greenallianceblog.org.uk/2021/07/06/the-uks-new-right-to-repair-is-not-a-right-to-repair/>> [Accessed 17 March 2022].

Credibility: Green Alliance is a charity focused on advocating for environmental solutions within the UK. Libby Peake, one of the authors is head of resource policy, has years of experience as editor of several publications and hold related degrees from well-respected universities. This was the most useful source in address the issues with the “Ecodesign for Energy- Related Products and Energy Information Regulations 2021” legislation. Apart from just criticising governments decisions in legislation, it justified possible areas of improvements, such as the fact that VAT could be removed to decrease the price of repairs, in order to make them more attractive. Viewpoint on Right to Repair from the companies representatives has appeared in several other publications which I had collected. The source inspired me to further investigate factual data such as the amount of e-waste UK produces.

phones and other equipment like tractors, ventilators, etc.²⁰ Even though, it covers TV screens it excludes electronic displays in all other devices.²¹

The EERPEIR aims to “extend the lifespan of products” by making available spare parts for up to 10 years to perform repairs.²² Although, this may seem adequate Rossmann, a repair shop owner himself, criticised this decision by claiming that this would result in increased cost of appliances for consumers.²³ His explanation was that manufacturers will legally be required to store a 10 years’ worth of supply of spare parts, regardless of its demand which is almost impossible to predict and if the stock is not utilised then manufacturer will suffer from revenue and will attempt to regain the money lost by increasing the cost of their other items or services.²⁴ Instead, of demanding the manufacturer to make spare parts available for a certain length of time, government needs to ensure that independent repair shops are able to purchase directly from the manufacturers whenever there is a peak in demand.²⁵

²⁰ Paul, K., 2021. Why right to repair matters – according to a farmer, a medical worker, a computer store owner. The Guardian. 2 August. Available at: <<https://www.theguardian.com/technology/2021/aug/02/why-right-to-repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner/>> [Accessed 28 March 2022].

Credibility: Kari Paul, the author of the article mostly focuses on technology related stories and issues. She has worked as reporters for years at several publications companies. With most sources speaking in reference to consumer electronic goods such as smartphones, this source provided me with a detailed perspective of how the Right to Repair legislation will impact minority such as the farmers and the medical workers. The article includes opinions from farmers, non-profit organisation, doctors, etc.

²¹ SPEIGHT, A., 2021. The UK’s right to repair law already needs repairing. [online] WIRED UK. Available at: <<https://www.wired.co.uk/article/right-to-repair-uk>> [Accessed 8 March 2022].

²² Espiner, T. and Wearn, R., 2021. Right to repair rules will extend lifespan of products, government says. [online] BBC News. Available at: <<https://www.bbc.co.uk/news/business-57665593>> [Accessed 3 April 2022].

Credibility: Even though very little is known about the first author, the second authors holds a position of power by being a senior broadcast journalist for BBC. The source provides a summary about the Eco-design for Energy- Related Products and Energy Information Regulations 2021 while also highlighting some its constraints. This source firstly informed me that a Right to Repair legislation already exists and therefore, encouraged me to further read about the legislation from House of Commons library. The report provided useful points and new ideas such as the fact that Right to Repair can make goods more expensive. Wearn is a journalist who has depicted her style of investigation through the title of the article, even though some bias can be suspected due to the focus being on positive side of the argument but it is important to note that it is a fact which the journalist aimed to address. Even though the authors do not seem to be experts in all areas of which the legislation will aim to benefit, they have used opinions and views from environmental experts. The article maintains a balance between points that are in favour and against the article, criticising governments views through evidence from other sources, such as company owners, environmental experts, etc.

²³ Louis Rossmann., 2021. Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

Credibility: Louis Rossmann, the narrator within the video published on the video sharing platform YouTube is a well- known YouTuber, Right to Repair movement activist, Repair Technicians, owner of a repairing group/repair shop. Although there is bias in most of his content due to his strong passion and enthusiasm towards Right to Repair, he has an enormous knowledge on the subject. The source provided adequate and useful information on alternatives to Right to Repair which were included in the Discussion as they fulfilled my 3rd objective.

²⁴ Louis Rossmann., 2021. Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

²⁵ Louis Rossmann., 2021. Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

EERPEIR is catered more towards professional repairers than consumers. As, repairs involving greater health and safety risk and a higher level of difficulty, would only be open for professional repairers, along with the spare parts needed for this work.²⁶ However, now consumers will be able to choose an independent repair shop or repair services from the manufacturer themselves.

Companies like Apple and Microsoft have been the main subject of the Right to Repair movement, due their influence over the industry and because of their repeated commitment in limiting owner's freedom. Such manufacturers reportedly made use of special screws and tools which only the companies have access to, in conjunction with the use of glued as previously mentioned, to increase the complexity of repairs²⁷.

Furthermore, such companies liaise with other manufacturers to construct special versions of components, which only get supplied to the company.²⁸ And private contracts with manufacturers are in place to maintain this stricter control over the distribution of parts sold to the company.²⁹ Increasing the constrain over independent repairers and individuals, attempting to perform repairs.³⁰

²⁶ Espiner, T. and Wearn, R., 2021. Right to repair rules will extend lifespan of products, government says. [online] BBC News. Available at: <<https://www.bbc.co.uk/news/business-57665593>> [Accessed 3 April 2022].

²⁷ 'Right to Repair Fights Electronic Manufacturers to Blocking Fix It Opportunities' (2021) Waste360 [Online], 01 Dec, NA, available: https://link.gale.com/apps/doc/A684420196/GPS?u=scc_jisc&sid=bookmark-GPS&xid=5b5cc7e3 [accessed 14 march 2022].

Credibility: Waste360 (Online) claim themselves to be education provider of issues regarding environment, sustainability, etc. And organises events in relation to these areas. E-waste containing lithium-ion batteries, commonly found in most electronic devices such as Laptops, smartphones, etc. contain toxic materials which often get released into groundwater, air, etc. This is very often the case in landfills sites in poor geographical areas where burning the e-waste is used as a method to extract precious material. Microsoft Surface laptop is not even meant to be opened or repaired without causing damage, due to the use of glue when putting the device together. Causing difficulties in reaching key components such as batteries. Similarly, done with Apple ion their MacBook Pros models.

²⁸ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.10. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

²⁹ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.10. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

³⁰ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.10. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

Discussion (4,289 words, excluding footnotes/ endnotes)

What would the Implications be of having an extended Right to Repair legislation, on individuals, businesses and the UK as a whole?

In the perspective of individuals, the financial implication of having an extended Right to Repair is that it will save consumers money. Most consumers purchase a new device when it is damaged or when it gets too slow, at great expense to themselves as repair prices are less attractive.³¹ Research shows that 65% of consumers avoid getting their smartphones repaired due to overwhelming fees.³² But, through the inclusion of consumer electronic such as smartphones in an extended Right to Repair legislation, market will be challenged to make available affordable pricing as consumers will have much greater choice. Like, the ability to perform repairs themselves and to choose independent repair service providers as opposed to relying on the manufacturer's repair services. As a result, this will reduce consumers dependence on manufacturers the moment they purchase the device and from their often-overpriced repairing services. Therefore, this will not only save consumers money by getting repair service providers to compete but by also permitting them a choice between replacing or repairing only parts of the device that are causing issues instead of purchase a complete brand-new device.

However, many manufacturers offering repair services will be financially disadvantaged from the extended right to repair legislation. Estimates from IBIS World show that Americans spent \$39 billion repairing heavy machinery such as tractors and bulldozers, and \$22 billion on repairing cell phones, computers, and electronics. Even though, the financial figures are in American Dollars, they provide an adequate indication of the number of people who choose repairs and the revenue that manufacturers like John Deere and Apple generate from it. This justifies Hanley et al claim that most of the revenue is sourced from aftermarket sales than from the sales of the unit.³³ Also, it can be suspected that it would be expensive for companies to make repair manuals or resources available as they would need to hire employees with the appropriate skillset to share their knowledge in a digestible manner.

Jalan suggests that manufacturers would not be able to receive regular flow of customers wanting to buy their latest products if Right to Repair was extended, meaning a damage to their revenue if

³¹ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. *Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair*. Google Scholar, [online] p.2. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

³² HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. *Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair*. Google Scholar, [online] p.15. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

³³ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. *Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair*. Google Scholar, [online] p.3. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

devices were created to last and to be repairable, year after year.³⁴ This statement addresses manufacturers stubbornness to not permit repairs and their overwhelming control over the goods we own. In favour of manufacturers claims are made that Right to repair can make white goods more expensive.

Adoption of lucrative business strategies through the creation of disposable items harms the environment as increased number of goods get sent to landfill sites.³⁵ In 2019, UK was reported to be the 2nd highest e-waste producing country in the world with 23.9kg per capita.³⁶ UK decided to illegally export most of this e-waste to developing countries such as “Nigeria, Ghana and India” instead of transporting it to recycling facilities.³⁷ Meaning that these countries will have to deal with contamination in soil, air, water and its surrounding areas due to toxic chemicals from our electronic goods³⁸ However, an extended Right to Repair will advocate towards the implementation of recycling facilities to avoid progressing into a “throwaway economy”.³⁹ While also challenging consumers current habits to frequently purchase newer goods based on the superiority of technology within it.⁴⁰

³⁴ Jalan, A. (2021) 6 Arguments Against Right to Repair That Make Sense. 15 November. Available at: <https://www.makeuseof.com/arguments-against-right-to-repair/> (Accessed 10 April 2022).

Credibility: AYUSH JALAN, the author of the source, has published numerous articles on the site, MUO (Make Use Of). And acquires academic qualifications relating to Marketing. This is one of the very few sources that provided ideas for argument against the Right to Repair legislation. I previously came across some of the points mentioned but in this article claims made by manufacturers were further expanded upon. This allowed me to better understand manufacturers viewpoint of the legislation.

³⁵ “More than 50 million tons of e-waste is generated each year, less than 20% of which is recycled.” Paul, K. (2021) Why right to repair matters – according to a farmer, a medical worker, a computer store owner. 2 August. Available at: <<https://www.theguardian.com/technology/2021/aug/02/why-right-to-repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner/>> [Accessed 28 March 2022].

³⁶ Buchholz, K., 2021. The Countries Producing the Most E-Waste. Statista. 25 February. Available at: <<https://www.statista.com/chart/24291/e-waste-by-country/>> [Accessed 30 March 2022].

Credibility: Katharina Buchholz a Senior data journalist at Statista has years of experience in “Researching and analysing data and turning it into infographics”. The data is gathered from well researched and collected from a wide range of sources. From the online article the data from the chart mentioned was used, UK produces 23.9 Kg of e-waste.

³⁷ House of Commons Environmental Audit Committee. (2020) *Electronic Waste and the Circular Economy*. 26 November. Available at: <https://committees.parliament.uk/publications/3675/documents/35777/default/> (Accessed: 29 March 2022)

³⁸ Alabi, O.A., Adeoluwa, Y.M., Huo, X., Xu, X. and Bakare, A.A. (2021) ‘Environmental contamination and public health effects of electronic waste: an overview’, Journal of Environmental Health Science and Engineering, 21 Apr, NA, available: https://link.gale.com/apps/doc/A659317987/GPS?u=scc_jisc&sid=bookmark-GPS&xid=19cc3b4d [accessed 17 March 2022].

³⁹ Green Alliance Blog, 2021. *The UK’s new ‘right to repair’ is not a right to repair*. [online] Inside track. Available at: <<https://greenallianceblog.org.uk/2021/07/06/the-uks-new-right-to-repair-is-not-a-right-to-repair/>> [Accessed 17 March 2022].

⁴⁰ Salvia, G., Cooper, T., Fisher, T., Harmer, L. And Barr, C., 2015. *What is broken? Expected lifetime, perception of brokenness and attitude towards maintenance and repair*. [online] Available at: <<http://irep.ntu.ac.uk/id/eprint/12817/>> [Accessed 18 March 2022].

Credibility:

On the other hand, it is important to note that an extended Right to Repair legislation will not completely help to combat Techno-Trash and that more will need to be done to facilitate recycling.⁴¹ This is because consumers will be producing electronic waste when performing repairs, for example the damaged components which will end up in bins. To address this, easy and convenient recycling services will need to be implemented to dispose damaged and unusable components safely and effectively.

Daniel A. Hanley et al, claims that repairing will refine consumers knowledge about electronic goods, mould transferable expertise such as technical skills, problem solving skills, etc.⁴² This is a logical statement, but it can be argued that disclosing information of the inner workings of any device will be problematic and cause a security concern due to the likelihood of individuals identifying flaws within a system through the knowledge from manuals, etc. Revealing the layout and designs of the product's internally such as its motherboard will allow competitors to be inspired to create better designs with improved longevity and durability of currently existing products, to compete. Also, innovation will stimulate among manufacturers as they focus on designing new and exciting products that challenge their competitors' ideas. As the competition increases within the market, consumers will be left with greater choices and will get a better deal for their money.

Right to Repair will aim to prohibit manufacturers from obtaining lucrative business strategies, as such "planned obsolescence", which deters human life⁴³. Landfill sites accommodate Techno-Trash and multiple studies have shown "risk of adverse health effects" for those exposed to landfill sites such as "Low birth weight, birth defects", lung cancer and bladder cancer, but Vrijheid emphasised that not enough was known about confounding factors such as smoking, alcohol consumption, socioeconomic status (level of education), etc., during the time of research.⁴⁴ Although, an extended Right to Repair does not promise to completely decrease the number of landfill sites in operation nor the amount of material which will end up in waste disposal sites, it can however, help us to sustain electronic devices for longer than usual. For some, Right to Repair can go as far as saving their or others life. For example, in the scenarios of farmers and doctors who need effective and timely repairing services.⁴⁵

⁴¹ Techno-Trash

⁴² HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.6. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

⁴³ Planned obsolescence is when businesses deliberately reduce the lifespan of the device in a bid to encourage consumers to purchase.

Paul, K., 2021. Why right to repair matters – according to a farmer, a medical worker, a computer store owner. The Guardian. 2 August. Available at: <<https://www.theguardian.com/technology/2021/aug/02/why-right-to-repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner/>> [Accessed 28 March 2022].

⁴⁴ Vrijheid M. (2000). Health effects of residence near hazardous waste landfill sites: a review of epidemiologic literature. Environmental health perspectives, 108 Suppl 1(Suppl 1), 101–112. <<https://doi.org/10.1289/ehp.00108s1101>>

⁴⁵ "The rate of suicide in the industry is already higher than average – one 2015 study from the Centers for Disease Control and Prevention (CDC) found male farmers in 17 states took their lives at a rate of 1.5 times higher than the general population."

While on the topic of health, Apple argues that Right to Repair laws could lead to inferior quality repairs and consumers accidentally harming themselves.⁴⁶ However, if adequate sources were provided with detailed guidance and instructions than repairers will be far from doing insufficient modifications, let alone injure themselves during the process. Incidents reported from D-I-Y (Do It Yourself) repairs are far too uncommon and to validate this claim Apple would have to first allow individuals to perform D-I-Y repairs.

An extended Right to Repair will provide independent parts producers and local repair shops extensive business opportunities and enable them to “better serve communities with more convenient, affordable, personalised and timely service.”⁴⁷ Currently Apple claims that for its iPhones, they will take anywhere from few hours to 6 to 8 days with repairing fees costing a fortune.⁴⁸ But this length of time can be narrowed if repairs were performed by independent repair shops or consumers. With just 5,000 Apple Authorised Service Providers (AASPs) across the world it is inconvenient to always rely on their services.⁴⁹ Local and major repairing businesses struggle to operate effectively as product manufacturers refuse to provide spare parts and essential data to successful perform repairs.⁵⁰ An argument to this is that under the Copyright, Designs and Patents

Paul, K., 2021. Why right to repair matters – according to a farmer, a medical worker, a computer store owner. The Guardian. 2 August. Available at: <<https://www.theguardian.com/technology/2021/aug/02/why-right-to-repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner>> [Accessed 28 March 2022].

⁴⁶ SPEIGHT, A., 2021. *The UK's right to repair law already needs repairing*. [online] WIRED UK. Available at: <<https://www.wired.co.uk/article/right-to-repair-uk>> [Accessed 8 March 2022].

⁴⁷ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers’ Aftermarket Monopoly and Restoring Consumers’ Right to Repair. Google Scholar, [online] p.4. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

⁴⁸ Based on the repairing fees published by Apple on their website, it costs more than half the units retail price to repair the device. But these fees are for Apple devices, uncovered by their warranty during the time of repair.

iPhone Repair and Service. Apple. Available at: <<https://support.apple.com/en-gb/iphone/repair/service>> [Accessed 29 March 2022].

⁴⁹ Wells, M., 2021. Apple’s Independent Repair Provider program expands globally. Apple. 29 March. Available at: <<https://www.apple.com/uk/newsroom/2021/03/apples-independent-repair-provider-program-expands-globally>> [Accessed 15 March 2022].

“repair can take more than five days, especially in rural areas where local technicians are not as accessible. This issue came into focus during the coronavirus pandemic, when delays to repairs on ventilators and other critical devices became a matter of life and death.”

Paul, K., 2021. Why right to repair matters – according to a farmer, a medical worker, a computer store owner. The Guardian. 2 August. Available at: <<https://www.theguardian.com/technology/2021/aug/02/why-right-to-repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner>> [Accessed 28 March 2022].

⁵⁰ “Often I have all the equipment and knowledge I need to do the repair, but I have to wait for the chips or other parts to come through the black market,” he said. “It’s a legal gray area.”

Paul, K., 2021. Why right to repair matters – according to a farmer, a medical worker, a computer store owner. The Guardian. 2 August. Available at: <<https://www.theguardian.com/technology/2021/aug/02/why-right-to-repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner>> [Accessed 28 March 2022].

Act 1988 manufacturers believe that everything related to their products such as its components, source codes, their intellectual property. This leaves them to make the decision on whether they want to share the information with repairers.⁵¹

Daniel A. Hanley et al, claims that with software being present in our everyday “consumer products from barbie dolls to doorbells to automobiles” it leads us to question its necessity in simpler products such as Kettles, dolls, etc.⁵² Even if software was absolute necessary then it should be open source, and not proprietary, so that everyone can modify and access it to their needs. This will increase the effectiveness of D-I-Y repairs in a variety of devices and avoid instances where the device cannot be repaired due to software failure.⁵³ Through an open-source software individuals will be able to bypass manufacture designed errors such as “Error 53”.⁵⁴ In the perspective of a business an open-source software will allow users to support the development of the software by voluntarily identifying flaws and producing patches. Saving the company both time, money, and workload.

Fisher claims that most individuals who bring their broken or damaged fashion and electronic goods require simple solutions such as inner cleaning of the device to restore it while others require challenging fixes.⁵⁵ For example, in the case of “Toby”, the kettle experienced a “computer failure” leading to no resolutions from the “volunteer fixers and visitors” at the repair cafe.⁵⁶ Not only does software integration restrict the extent to which repairs can be performed but it also limits users’ freedom the moment they purchase the device who should otherwise have full ownership of it.⁵⁷

With an overwhelming list of advantages, manufacturers have attempted to defend their actions by stating issues that would arise from an extended Right to Repair. Firstly, concerns over user's health, manufacturers claim that unexperienced users may harm themselves when attempting to fix their devices and that those using 3rd party, non-OEM (not Original Equipment Manufacturer) parts are likely to get their hands upon parts that are poorly designed, manufactured and tested to keep the

repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner/> [Accessed 28 March 2022].

⁵¹ Louis Rossmann. (2020) Maryland HB1124 Right to Repair hearing. 13 March. Available at: <https://www.youtube.com/watch?v=PZVdSRpvqQw&t=4446s> (Accessed: 6 April 2022)

⁵² HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.8. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

⁵³ Fisher, M. (2017). *Reviving the art of repair*. Alternative Technology Association, 39, 78–80. Available at: <https://www.jstor.org/stable/90009782> [Accessed 4 March 2022].

⁵⁴ Macro, A., 2018. *What is iPhone Error 53 and how do I avoid it?*. [online] Macworld UK. Available at: <<https://www.macworld.co.uk/feature/what-is-iphone-error-53-3634865/>> [Accessed 9 March 2022].

⁵⁵ Fisher, M. (2017). *Reviving the art of repair*. Alternative Technology Association, 39, 78–80. Available at: <https://www.jstor.org/stable/90009782> [Accessed 4 March 2022].

⁵⁶ Fisher, M. (2017). *Reviving the art of repair*. Alternative Technology Association, 39, 78–80. Available at: <https://www.jstor.org/stable/90009782> [Accessed 4 March 2022].

⁵⁷ Fisher, M. (2017). *Reviving the art of repair*. Alternative Technology Association, 39, 78–80. Available at: <https://www.jstor.org/stable/90009782> [Accessed 4 March 2022].

price of the components as low as possible⁵⁸. Secondly, concerns over security of the devices. Manufacturers believe using 3rd party, non-OEM parts can jeopardise security of their products as reinforced by Apple's "Error 53" occurred when the iPhone detected a non-OEM part of "screen or Touch ID home button"⁵⁹. Apple defended their actions by stating that it was purposely implemented to avoid⁶⁰. Although this may seem reasonable in the perspective of a Touch ID button, but in the context of replacing/ repairing a screen it is unjustifiable and instead sounds like a feature designed to penalise individuals who choose to seek to cheaper alternatives.

Manufacturers claim that Right to Repair Regulations would undermine the security of their devices.⁶¹ This may be due to the exposure of sensitive internal components such as its motherboard. However, lack of study on exploiting data on devices through hardware alone fails to validate these claims. Also, with software integration in protecting device hardware, the likelihood is low. Manufacturers who oppose Right to Repair for reasons like these seem to be taking law into their own hands. As pre-existing legislations like Computer Misuse Act 1990 and Police And Justice Act have been established to cover such concerns and issues by holding users accountable for attempting to hack or spread virus within computer system.⁶² So, users with malicious intents who jail break into a device are likely to be prosecuted with jail time and fines.⁶³ Ironically, an Apple's certified repair provider in the past violated consumers right to privacy by sharing sensitive information of a customer on the internet while performing repairs on the customer's phone.⁶⁴

Right to Repair may be ineffective in eliminating consumers dependence from manufacturers repair services as some would prefer swapping the responsibility of repair into the hands of manufacturers. Additionally, some consumers find repairing services offered by manufacturers more reliable and trustworthy, than those offered by independent or 3rd party repair service providers.

Many claim that Right to Repair will aid towards addressing longevity of products. But Salvia G. et al., pointed out that user's lack of motivation in repairs and maintenance corresponds to a shorter lifespan among products. This is because consumers perceive goods to be broken or unusable long

⁵⁸ Brooks, G., 2018. 3 Risks To Right To Repair Legislation. [online] Manufacturing.net. Available at: <<https://www.manufacturing.net/operations/blog/13228762/3-risks-to-right-to-repair-legislation>> [Accessed 5 March 2022].

⁵⁹ Mirr, N.A. (2020) '*Defending the Right to Repair: An Argument for Federal Legislation Guaranteeing the Right to Repair*', Iowa Law Review, 105(5), 2393+, available: https://link.gale.com/apps/doc/A634680439/GPS?u=scc_jisc&sid=bookmark-GPS&xid=e1fddc95 [accessed 12 March 2022].

⁶⁰ Macro, A., 2018. *What is iPhone Error 53 and how do I avoid it?*. [online] Macworld UK. Available at: <<https://www.macworld.co.uk/feature/what-is-iphone-error-53-3634865/>> [Accessed 9 March 2022].

⁶¹ Youtube video

⁶² Cyber Security and Incident Management, Legal Responsibilities 1. KnowItAll Ninja. Available at: <<https://www.knowitallninja.com/lessons/legal-responsibilities-1/>> [Accessed 8 April 2022].

⁶³ Cyber Security and Incident Management, Legal Responsibilities 1. KnowItAll Ninja. Available at: <<https://www.knowitallninja.com/lessons/legal-responsibilities-1/>> [Accessed 8 April 2022].

⁶⁴ Authorised Apple repair technicians uploaded explicit images and videos to the internet from a customer's phone that was sent in for repairs.

Paul, K. and Holpuch, A., 2021. Apple paid woman millions after technicians used her iPhone to post explicit videos. The Guardian. 7 June. Available at: <<https://www.theguardian.com/technology/2021/jun/07/apple-settles-iphone-explicit-images>> [Accessed 28 March 2022].

before the products end of lifecycle.⁶⁵ Moreover, Right to Repair will fail to address consumers irresponsibility during handling of goods.

With Right to Repair expected to cover a wide spectrum of devices, anything containing a software or a microchip, it intensifies the work and effort needed to construct a legislation. As the legislation would need to include guidelines which are universally applicable for products like smartphones, ventilators, tractors, etc.⁶⁶

How can the extended Right to Repair legislation be better regulated within the UK?

UK as a developed country consists of major businesses which attract an enormous number of consumers who often purchase more than they need, leading UK in becoming the 2nd highest country in producing e-waste⁶⁷. Environmental Audit Committee claims that e-waste in the UK can be tackled if these key points were addressed such as repairability of devices, effective recycling of devices and sourcing of precious natural materials within discarded items⁶⁸.

The "Ecodesign for Energy- Related Products and Energy Information Regulations 2021" (EERPEIR) only cover a limited number of white goods and household items. But excludes important pieces of equipment such as consumer electronics like smartphones, agricultural/ farming equipment like tractors, medical equipment like ventilators and many others.⁶⁹

With the advantages that the Right to Repair has to offer, the current legislation in the UK fails to offer similar promising benefits by missing key points such as, making it a requirement for manufacturers to offer spare parts at an affordable price, prohibiting manufacturers from introducing unrepairable or incompatible goods with shorter lifespan and requiring them to offer manuals and information to proceed with D-I-Y repairs.⁷⁰

EERPEIR works more in the favour of professional repairers, than average consumers by limiting "simple and safe" repairs to consumers, while other more complicated and difficult repairs only to professional repairers.⁷¹ The concern over users' health and safety is one of Apple's arguments for

⁶⁵ Louis Rossmann., 2020. *Maryland HB1124 Right to Repair hearing*. 13 March. Available at: <https://www.youtube.com/watch?v=PZVdSRpvqQw&t=4446s> (Accessed: 6 April 2022)

⁶⁶ Buchholz, K., 2021. The Countries Producing the Most E-Waste. Statista. 25 February. Available at: <<https://www.statista.com/chart/24291/e-waste-by-country/>> [Accessed 30 March 2022].

⁶⁷ UK Parliament. (2021) *Electronic Waste and the Circular Economy / Commons Environmental Audit Committee*. 1 July. Available at: <https://www.youtube.com/watch?v=90k2Tk-BUIA> [Accessed: 24 March 2022].

⁶⁸ Paul, K., 2021. Why right to repair matters – according to a farmer, a medical worker, a computer store owner. The Guardian. 2 August. Available at: <<https://www.theguardian.com/technology/2021/aug/02/why-right-to-repair-matters-according-to-a-farmer-a-medical-worker-a-computer-store-owner/>> [Accessed 28 March 2022].

⁶⁹ HANLEY, D., KELLOWAY, C. and VAHEESAN, S., 2020. Fixing America: Breaking Manufacturers' Aftermarket Monopoly and Restoring Consumers' Right to Repair. Google Scholar, [online] p.4. Available at: <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5ea8a6d93b485d0feb9b5d6b/1588111098207/Report_RightToRepair_HanleyKellowayVaheesan-1.pdf> [Accessed 25 November 2021].

⁷⁰ Espiner, T. and Wearn, R., 2021. *Right to repair rules will extend lifespan of products, government says*. [online] BBC News. Available at: <<https://www.bbc.co.uk/news/business-57665593>> [Accessed 3 April 2022].

opposing towards Right to Repair legislation, which may be the reason for the UK government to take such measures. But moving forward it is essential for an extended Right to Repair legislation to ensure that ordinary individuals can perform repairs on devices they rightfully own. This will be especially important for those with learning difficulties, Autism and other disabilities which would significantly reduce their ability to gain the title of professional repairer.

EERPEIR “is to extend the lifespan of products by up to 10 years” by making spare parts available to perform repairs.⁷¹ Rossmann, pointed out that this would require manufacturers to keep an exact 10 years’ worth of supply of spare parts to avoid breaching the law.⁷² And in scenarios where the inventory of supply has not been utilised, it would mean an enormous financial loss for the manufacturer.⁷³ This will obviously result in increased cost to consumers as manufacturers will attempt to regain the money lost from the unsold spare parts.⁷⁴

Year after year, fines have shown to do insignificant impact on corporations who receive fines, which is why I believe that fines should not be imposed on corporations and instead they should be required to assist in projects that would positively contribute towards our society, community, and our planet earth. Wealthy corporations within the technology sector like Apple would have no problem in paying large fines and will often look for ways to gain the same back lost back by increasing the price of their products for consumers.⁷⁵

Are there any alternative routes, instead of relying on an extended “Right to Repair” legislation, within the UK?

Even if the government decided to avoid extending the “Ecodesign for Energy- Related Products and Energy Information Regulations 2021” there are still a limited number of alternatives that we can take as consumers. But they would be less impactful in achieving similar goals and benefits as set out in an extended “Right to Repair” legislation. For example,

Raising awareness of the issue by letting consumers know the degree of repairability for each of their products. This is similarly done with French online stores where devices are ranked based on their degree of repairability, and scores are mentioned to encourage consumers to make more

⁷¹ Espiner, T. and Wearn, R., 2021. *Right to repair rules will extend lifespan of products, government says*. [online] BBC News. Available at: <<https://www.bbc.co.uk/news/business-57665593>> [Accessed 3 April 2022].

⁷² Louis Rossmann. (2021) Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

⁷³ Louis Rossmann. (2021) Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

⁷⁴ Louis Rossmann. (2021) Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

⁷⁵ Balu, N. and Randewich, N., 2022. Apple becomes first company to hit \$3 trillion market value, then slips. Reuters. 4 January. Available at: <<https://www.reuters.com/markets/europe/apple-gets-closer-3-trillion-market-value-2022-01-03/>> [Accessed 29 March 2022].

Louis Rossmann. (2021) Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

environmentally friendly decisions.⁷⁶ This will persuade manufacturers to compete by increasing the degree of the repairability of products, in order to rank higher on the website.

Educating others on how to reuse, repair and modify goods using pre-existing sources from creators like iFixit, Louis Rossmann, etc., on the World Wide Web can help to achieve our aims such as reducing e-waste.⁷⁷ While also, cultivating key skills among individuals performing repairs such as critical thinking and problem-solving skill.⁷⁸ Salvia G. et al., pointed out that user's lack of motivation in preserving electronic devices such as Vacuum cleaners corresponds to a shorter lifespan of the devices.⁷⁹

⁷⁶ SPEIGHT, A., 2021. *The UK's right to repair law already needs repairing*. [online] WIRED UK. Available at: <<https://www.wired.co.uk/article/right-to-repair-uk>> [Accessed 8 March 2022].

⁷⁷ Louis Rossmann. (2021) Let's talk about the new UK right to repair law and why it isn't a failure. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

⁷⁸ Louis Rossmann. (2021) *Let's talk about the new UK right to repair law and why it isn't a failure*. 2 July. Available at: <https://www.youtube.com/watch?v=z-TE-IVJOB4> (Accessed: 2 April 2022)

⁷⁹ Salvia, G., Cooper, T., Fisher, T., Harmer, L. And Barr, C., 2015. *What is broken? Expected lifetime, perception of brokenness and attitude towards maintenance and repair*. [online] Available at: <<http://irep.ntu.ac.uk/id/eprint/12817/>> [Accessed 18 March 2022].

Conclusion (250 words)

The Ecodesign for Energy- Related Products and Energy Information Regulations 2021 (EERPEIR) marks a new beginning into our competitive market to regulate and restrict unjustifiable behaviours of manufacturers. But, in moving forward, an extension to the current Right to Repair legislation will be required, to covers more products, to ensure repairs and modifications can be performed by consumers and not just independent repairs shops or OEM's (Original Equipment Manufacturer) and to ensure that manuals and pieces of equipment are accessible to complete repairs effectively. An extended legislation will also address other related topics such as punishments for breaching the law, software in everyday objects, etc. Right to Repair has an enormous potential which once effectively implemented will be apparent.

An extended Right to Repair will create more opportunities for small repairing businesses to succeed, save consumers money, protect the environment from deteriorating further, advocate for better living conditions, especially among those living near waste disposal sites which are often in poor geographical areas. While also provide a form of free education among individuals. These benefits, as previously uncovered of having such legislation outweigh some of its drawbacks.

Guidelines set out in an extended Right to Repair legislation would need to be legally enforceable to ensure that manufacturers take serious steps to minimise their carbon footprint. Without the legislation manufacturers will continue to pursue best financial outcomes for their business, instead of creating and launching environmentally friendly solutions and services. These days, revenue is often prioritised over ethical and moral consideration.

Evaluation (250 words)

Undertaking the project was a memorable journey for me, as at first understand the qualification was an absolute struggle, such as being able to differentiate between a Literature/ Research Review with an Introduction.

During the project obstacles which I overcame were lack of knowledge about Harvard referencing method and how to make use it in relation to different types of sources, which I overcame by doing research and receiving guidance from our librarian. Difficulties in find a variety of sources, which I overcame by producing a list of key terms I could including during my search on websites like JSTOR. Balancing EPQ, with other subjects as well as my personal life, which I overcame by using my weekends and holidays. Managing my time effectively, which I overcame by producing and following the project plan for the most parts.

However, the project was a success and bypassed my own expectations, in terms of what I perceived myself to be capable of. I managed to gather adequate information on my topic to form a response to all my objectives, I adapted new skills such as reading and critical thinking skill, and cultivated my pre-existing expertise such as research skill, I managed to meet my personal goal in becoming more productive and efficient with my time, I discovered new tools which can be utilised in my future studies, gained a better understand of the IT industry and so much more.

The inclusion of a presentation nearing the end of the course taught to effectively present to an audiences mostly of my age, brief vs concise with my words, while maintaining their attention throughout.

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