

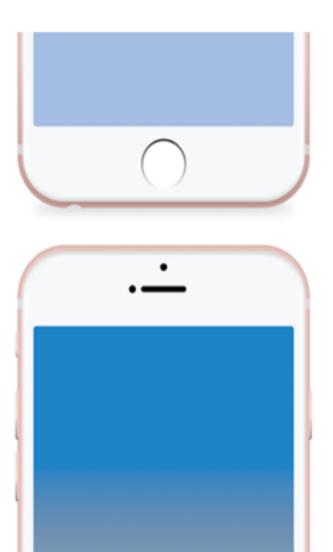
iPhone Sustainability

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Apple's flagship iPhones launch is always the most interesting and exciting technology launch. They manage to always have us questioning what new innovation are they going to implement?

These launches would always guarantee for consumers to be amazed by all the new and improved ideas Apple comes up with. Apple would leave us on waiting and wanting more by releasing products a year between each new device. However now apple releases a new flagship phone every six months, with little innovation and in doing this the process of manufacturing on such a large scale is impacting the environment through the amount of Green House Emissions.

When taking into consideration the planned obsolescence of smart devices especially that within iPhones requires consumers to upgrade their devices every two to three years. However as stated above the process that is undertaken in order to manufacture an iPhone requires a high percentage release of Green House Emissions. In saying this the emission level has managed to have a small decrease from seventy seven



percent in 2016 to seventy four percent as stated in the 2019 Apple report.

Due to manufacturing having such a high emission output the implementation of planned obsolescence within iPhones are creating quite a negative environmental impact. Analyst Aorace Dediu ponders on the idea if Apple is betting on the notions that sustainability is actually going to be used as a business strategy allowing them to grow their market of consumers. They will be able to market themselves as a company that is eco-friendly allowing for consumers to want to be apart of such sustainability.

Apple in 2016 released their first recyclable robot named Liam who was capable of detecting specific parts within the device. Liam is able to safely strip back these parts with the hope that each part can be refurbished for other technological needs within the Apple business. In 2018 the successor of Liam was showcased as Daisy, which is also used from recycled material from Liam. Daisy ultimately does the same as Liam however quicker and more efficient, these robots are made to try and cut back

the e-waste that could have been produced without the proper recycling.

According to iFixit it is recorded that over twenty million tons of electronic waste is produced every year from incorrect disposal of technology. Quite like most waste it is harmful for the surrounding environment, however e-waste in particular is guite problematic due to the harmful chemicals such as mercury, lead and arsenic. When these particular chemicals are not properly disposed of they are able to spread themselves into ground water as well as workers who are unaware that these chemicals have leached into the environment that was surrounding them. The most recent models that apple has released have less harmful chemical elements used such as the removal of beryllium, benzene and n-hexane (both being linked to nerve damage as well as leukaemia) from the final production line of iPhones in their factories.

Lithium-ion batteries are the most well known and mainly used battery source when it comes to smart devices, however this battery - like everything - has it's flaws. These batteries are capable enough to power all the things that iPhones need in order to run but unfortunately these batteries decline in performances as it ages - lithium-ion batteries normally only have enough in them to be charged a specified number of times before having to





be replaced after a few years. By doing so it requires consumers to either completely replace their entire phone, or dispose of their old battery thus replacing it with a new lithium-ion one. Apple recently came forth with the admittance of controlling their iPhone performance due to 'reduced battery performance'. By revealing such information to the general public it has meant that Apple has cut down the cost of a battery replacement.

Although even though Apple still does have some improving - quiet like most technology companies, they are on the right track to producing products that are more environmentally friendly towards our environment. As of 2017 Apple has managed to be labelled by Greenpeace as one of the most environmentally friendly tech company for the third consecutive year.

References:

Deahl, D. (2018, April 19). Daisy is Apple's new iPhone-recycling robot. Retrieved from https://www.theverge.com/2018/4/19/17258180/apple-daisy-iphone-recycling-robot.

iWaste: The iPhone Environmental Impact - Orchard: Blog. (2019, June 21). Retrieved from https://www.getorchard.com/blog/iphone-environmental-impact/.

Opam, K. (2016, March 21). Apple's friendly Liam robot only rips apart old iPhones, don't worry. Retrieved from https://www.theverge.com/2016/3/21/11277664/apple-liam-robot-recycling-humanity-uprising.

Park, M. (2019, July 15). Sustainable shopping: if you really, truly need a new phone, buy one with replaceable parts. Retrieved from http://theconversation.com/sustainable-

shopping-if-you-really-truly-need-a-new-phone-buy-one-with-replaceable-parts-930 69.

Shunmugasundaram, R., Lagadec, M. F., Degnarain, N., Wood, V., Zürich, E. T. H., ETH Zürich, ... National Ocean Council. (n.d.). The future is battery-powered. But are we overcharging the planet? Retrieved from https://www.weforum.org/agenda/2017/09/lithium-ion-batteries-ethics-global-battery-alliance/.

Smedley, T. (2014, February 11). Why recycling smartphone batteries is vital for sustainability. Retrieved from https://www.theguardian.com/sustainable-business/recycling-smartphone-batteries-vital-sustainability.

Apple's Carbon Footprint

