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CST 300 Writing lab
2/15/19

Right to Repair

Are copyright laws an industry protection or consumer punishment? Copyright laws have been used since the introduction of the printing press way back in the fifteenth century.

Copyright law was introduced during that time to prevent the printing press companies from having a complete monopoly over the book making industry. “The 1710 act established the principles of authors' ownership of copyright”(Arl, n.d). Authors were in need of a way to protect their intellectual property, this act gives them that ownership and the ability to licence their work to a publisher or bookseller. However, “once a work was purchased the copyright owner no longer had control over its use”(Arl, n.d) the reseller of the work had full control over the work after the rights were given to them. Since these first acts of copyright laws they have expanded to cover new technologies.

Copyright laws ruled over how intellectual property was sold and exchanged but was mostly written with books in mind. That is until 1998 when the Digital Millennium Copyright Act (DMCA) brought these laws up to date for the technologies of the time. “According to Jonathan Band of Morrison & Foerster, LLP, Section 1201 "prohibits gaining unauthorized access to a work by circumventing a technological protection measure put in place by the copyright owner where such protection measure otherwise effectively controls access to a copyrighted work. This prohibition on unauthorized access takes effect two years after enactment of the DMCA."”(Arl, n.d). Cutting off the ability for a third party to do any repairs on technology that had a digital lock on it to prevent infringement. There was a slight lull in the strict copy protection between 2003 and 2006, “On October 28, 2003, the Librarian of Congress,

on the recommendation of the Register of Copyrights, announced the classes of works subject to the exemption from the prohibition against circumvention of technological measures that control access to copyrighted works.” (U.S. Copyright Office, 2017). This was an interesting step for copyright law as it gave access to circumvent copy protection on programs and digital media that had been physically locked behind old and obsolete formats, such as physical game cartridges and dongles that prevented access so long as that format was no longer being manufactured. While these exemptions to anti-circumvention methods specifically only lasted three years, there were others that came in and out of law in the following years. One of these was a law allowing the consumer to unlock their phones from certain carriers, allowing consumers to use their phone on any wireless network. However when this law ceased in 2012, citizens created a petition called “We The People”. This petition gained over 114,000 signatures and led to a reconsideration of the law. Eventually the White House made this exemption permanent (Arl, n.d). This brings us to the present day with the fight for the Right to Repair. Are repairs infringing on these copyright laws or is it making enough of a change to the original device to be exempt under fair use.

There are good arguments on both sides. On one side there is the need to have intellectual property protected. It gives a reason for people to create new things and get paid for it. On the other side there is the consumer wanting to be able to build on their product, or even just bring it back to working condition without having to go through the manufacturer. As of now the DMCA holds anyone wanting to do something as simple as working on their car, or fixing their tractor. The DMCA even protects the code used in pacemakers, things literally keeping people alive, under protection so that outside of the company no one has ever seen the code.

On the side on fighting for continued copy protection there will be the ethical framework of Ethical Egoism. This framework which says that to be ethical we should focus on how much it benefits the person making these new technologies. This is good because it will keep people wanting to make new things in hopes of making the next big product and striking it rich. The hardware and software behind a product is extremely complex and often everything needs to be in a very specific state for the whole device to work properly. Companies are making more and more complex devices as technology gets better and faster. To do this they need to put even more restrictions and locks on their devices, making it so only their technicians can repair the devices. When consumers attempt to repair their own devices, they can potentially destroy a once fixable product. The major stakeholders of the argument against the right to repair is the companies making the device. As there want to make sure that the consumer is getting the best possible device that is in full working condition. This goes against the stakeholders which argue for the right to repair as they lose the options when it comes to wanting to get repairs on their personal devices.

Next, the evidence fighting on the side of continued copyright protection and against the consumer having the right to repair. The push toward making smaller and better devices have led to cramming more and more technology into smaller and smaller places, making repairs even harder. This new push towards devices being waterproof has further increased repair difficulty. This is because the device has to go perfectly back together and have all openings fully sealed, meaning that only a trained expert should work on the device. If third parties don't have access to repairing the device, companies can keep their trade secrets and not have to worry about people stealing their product designs. John Deere, a major manufacturer of tractors, says that

their stance against right to repair is, “To protect customers’ significant investment in equipment, and to ensure continued compliance with emissions, operator safety and other regulatory requirements”(Iles, n.d) John Deere argues that its position on the argument is based primarily on the want for the best customer experience, safety and to keep their products within the law. They also claim that they have highly trained technicians that, “John Deere dealerships have invested millions of dollars in facilities, tools and technician training to provide service and repairs to the full line of John Deere equipment.”(Iles, n.d) They are investing by training professionals to protect your investment. On the mobile phone front the companies striving to make the next device smaller and faster has lead to a lot of manufacturing innovations and having to cram even more into a small space. In response to this market transition Apple doesn’t even trust trained professionals with working on repairing their phones anymore. “The company also understands just how hard it is to repair and dismantle its own products. In 2015, Apple introduced LIAM, a custom-design, iPhone-dismantling robot. It’s still a prototype, and only safely dismantles an iPhone 6, but it also separates and sorts recyclable and hazardous materials” (Ulanoff, 2017), this shift shows just how complicated devices have become and they are even more fragile than ever with their small parts leading to repairing your own device with a high risk of making the damages even worse than they once were.

While on the pro-repair side, utilitarianism is the best fit. This is because bringing more people's eyes on the code will lead to more bugs being found and a greater understanding of the safety of the product throughout its lifespan supported by the manufacturer or not. The consumer owns the device, not the company, so as it is their property they should be able to do whatever they want with it. People have been repairing things like cars on their own since the first car.

Why stop at being able to fix your own phone, or your tractor? The stakeholders of this side are much like the other just flipped in terms of benefits. The company loses money not making repair profits anymore, third party repair shops become a potentially cheaper option or even repairing the device yourself and then you just need to pay for parts. The consumer gets more options to get their devices fixed for cheaper than taking it to the manufacturer.

On the side wanting to maintain and grow the right to repair, this is the evidence toward the benefits of this side. Open-source never dies as with Pebble having poor financial decisions and Fitbit as the company that bought Pebble then turned the code and full specifications over to the community allowing them to keep the smartwatch alive as Rebble. Even expanding on the functionality, “another exciting reason for creating our own open-source, FreeRTOS-based OS” (Rebble). With Pebble and their purchase by Fitbit worked out the best for everyone. The company which was going bankrupt got purchased allowing some of the employees to move over to the new company. Then Fitbit opened the watch’s cloud services app store and firmware up to the public which has now created a lot of new documentation and continued developing firmware for the watch. While this is good there has been a much slower development than when there was a dedicated team.

Another story that demonstrates the benefits of maintaining your own devices comes with the end of the Nintendo Wii Shop Channel. This online software store was used as the main way to buy digital games for the Nintendo Wii and Wii U. “It is no longer possible to purchase new content from the Wii Shop. However, for the time being, you may continue to re-download content you have purchased or transfer that content from a Wii system to a Wii U system. Be aware that these features will eventually end at a future date.” (Nintendo, n.d). This means with

the end of the service you can no longer buy games and will soon not being able to redownload the games that you bought through their service. This means that there will no longer be any way to play these games that you paid for. But if there was a way to repair your system or move these games to another system then this would not be as bad of a situation.

I believe that the right to repair and upgrade your own belongings is important. I have had many experiences with upgrading my own devices. I built my own computer because I wanted to be able to hand pick for the specs that I want and keep the cost low for what I needed. I also still run a 2010 Macbook as my daily laptop. I use it for almost all of my school work and programming, but it is not left stock. I have replaced all of the inner parts that are easily replaceable. I bought it some new ram as it was bought originally with minimum specifications. The other big upgrade I got was a new solid state hard drive as the original hard drive was very slow. Also, I owned one of the original PS3 that was backwards compatible but they suffered from an overheating problem so they were recalled. But when my PS3 encountered that issue I opened it up and found that the hard drive had melted. To fix it, I simply replaced it with another hard drive. With the right to repair, I also have the option to not repair a device. I own an original Pebble smart watch which is encountering a known error of screen tearing. While the fix is a simple and well documented pry the watch open and replace a ribbon cable inside, I didn't want to break the waterproofing of the device. I am living with the occasional screen tearing to keep the ability to take it for a swim and not worry about it in everyday life.

In conclusion, I would not say that there needs to be a right to repair current technology as it helps the companies with their research and development toward their next product. Although as my call to action if you are a company owner, instead of just end of lifeing a product

and telling people they need to just buy a new one. You should upon releasing a new product or ceasing manufacturing of a product you should release the company's findings and guides on how to repair and maintain the device or make upgrades if possible. I feel like the story of Pebble is a best case scenario, where the manufacturer no longer supporting their product opens all of the software and systems to the community that is still using their devices. While this position may cut back on the bottom line of these companies, there are some consumers that don't want to or can't upgrade and they should be given another option to keep their devices working.

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