

## Lesson 4 Create a Greener Tomorrow

### Breaking the Cycle: Solutions to E-waste

On her way to a study group meeting, Liz accidentally dropped her laptop on the street, seriously damaging it. Although it still turns on, the screen is cracked, and some keys are not working. She can have it repaired, but she is hesitating to do so. Sometimes repairs are expensive, and they often take a long time. Besides, the laptop is about five years old. In this case, getting rid of the old one and purchasing a new one might seem like a more reasonable option. In reality, however, it may not be the best thing to do. If Liz throws her laptop in the trash, she will be contributing to a serious problem: e-waste.

What exactly is e-waste? The term refers to discarded electronic devices and electrical appliances. Due to toxic materials contained in these products, such as lead, e-waste is a serious health and environmental hazard. To make matters worse, the amount of e-waste produced each year is increasing at an alarming rate. In 2021, a total of 57.4 million metric tons of e-waste was generated worldwide, which was a 37% increase from 2014, the year when data about e-waste was first collected. Experts predict that by 2030, the amount of e-waste generated annually will have doubled in just 16 years. For this reason, efforts are being made to address this problem, most of which are focused on making products easier to repair. Let's take a look at some practical approaches from around the world.

**Right-to-Repair Movement: Empowering Consumers**

One reason many people dispose of their damaged devices is that they are too difficult to repair. For example, a device may be difficult to disassemble, or its manufacturer may require that it be brought to an official service center to be fixed. Many companies do not allow their customers to take their damaged items to third-party repair shops. What is more, some products are intentionally designed to be difficult to repair. It is common for consumers to be unable to acquire the instructions for how to fix their items or the parts needed to complete repairs.

The right-to-repair movement is trying to solve these problems by promoting legislation that states the following: If you own a product, you have the right to fix it yourself or bring it to a technician of your choice. To protect the rights of consumers, the right-to-repair movement demands four things. First, companies must make information about their products available to everyone. Second, third parties, including individuals, should be able to obtain the parts and tools required to make repairs. Third, the practice of preventing consumers from installing custom software on their own devices should be prohibited by law.

Finally, it demands that manufacturers design devices in a way that makes repairs as easy as possible. Advocates of the movement say that if all these goals are accomplished, far less e-waste will be generated. Thanks to their efforts, more than 40 states in the U.S. have begun working on right-to-repair legislation. This movement is gaining a growing influence in Europe as well, with more and more countries joining the cause.

**Repairability Index: Information at a Glance**

In January 2021, the French government passed a bill that requires that every manufacturer include a "repairability index" on five categories of electronic devices and electrical appliances: smartphones, laptops, washing machines, televisions, and lawn mowers. Using a score ranging from 0 to 10, as well as a color-coded system, the index lets consumers see how easily the product can be repaired before they purchase it. The index takes into account several elements, including the availability of repair information, the ease of disassembly, and the price of spare parts. A low number on a bright red label means that repairing the product will be difficult, whereas a high number on a green label indicates that the product is easy to repair.

The index was designed to have two positive effects. Firstly, it allows consumers to make informed decisions when purchasing new devices and appliances. Secondly, it encourages manufacturers to make their products easier to repair. As a result, with fewer electronic and electrical items ending up in its landfills, France can expect to make a transition to a more sustainable society in the near future. The impact of the index, however, is likely to spread far beyond France. We live in a global economy, and any company that wants to sell its appliances on the French market will need to label its products according to the repairability index. If the index is successful, we can anticipate seeing more countries around the world following France's innovative lead.

### **Repair Cafés: It takes a Community**

When consumers are given the right tools and materials, along with some helpful advice, they can repair much of the damage that occurs to electronic products by themselves. That is why Repair Cafés were started. They are free meeting places where people can gather together and fix their broken devices. The cafés are staffed by volunteer experts who can give technical advice and teach people how to fix things.

The first Repair Café was opened in the Netherlands in the city of Amsterdam in 2009. It was such a success that the idea soon spread to neighboring countries. Before long, there were Repair Cafés in over 30 countries around the world. Along with preventing damaged items from becoming e-waste, these cafés also encourage people to share their invaluable skills and knowledge about the repair and maintenance of electronics. They continue to grow in popularity, with more and more people signing up to volunteer.

By providing spaces where people can learn, Repair Cafés enable individuals to maintain their devices and extend their life spans. Furthermore, they foster a sustainable perspective that can have a huge positive impact on our future.

Do you remember Liz, the girl who dropped her laptop? Imagine she lived in a world where repairing damaged devices and appliances was simply part of everyday life. If that were the case, her options wouldn't be limited to paying for expensive repairs or throwing away her laptop and buying a new one. She would be able to order the necessary parts online and replace them herself. Alternatively, she could bring her damaged device to the nearest Repair Café to get advice on how to fix it. Repairing it probably wouldn't be very hard, as she likely would have purchased a laptop with a high repairability score.

In fact, this sustainable world is a future we can all enjoy if we work toward it together. Even more importantly, it is a future in which people will generate far less e-waste, making our planet a cleaner, healthier place for everyone.