Alex Lin of Rhode Island: A “Hero of the Environment”

Recycling Electronic Waste

When Alex Lin was 11 years old, he read an alarming article in the newspaper about electronic trash, known as e-waste in places it should never go. They were burying old computers in backyards, throwing TVs into streams, and tossing cell phones in the garbage. This was dangerous, the article said, because e-waste contains poisonous chemicals and toxic metals like mercury and lead. These harmful substances can leak into the environment, getting into crops, animals, water supplies—and people.

“I was really worried,” Alex remembers. “Just think about it. You know those toys that have been recalled because they contain tiny amounts of lead that could be dangerous to children? Well, consider this: each CRT (cathode ray tube) monitor contains four to eight pounds (nearly two to four kilograms) of lead.”

Alex showed the article to a few of his classmates. They were worried too. “What if it’s happening here? We could be poisoning the environment and not even know it.”

“Maybe we can help,” Alex said. “I think we should make this our next project for WIN.”

WIN was the Westerly Innovations Network, named for their town of Westerly, Rhode Island. Two years before, Alex, then nine years old, and six of his buddies had formed the organization to help solve community problems. All of them were part of a national program that teaches kids to become community leaders. Alex’s father is a coach with WIN. “He makes sure that we plan for each project in a practical way,” says Alex.

But what could they do about this problem with e-waste? How would they even start?

“The first thing we did,” Alex says, “was to learn more about the problem.” Alex and his friends spent several weeks gathering information about the chemicals in e-waste and their effects on humans. They learned how to dispose of e-waste properly and how it could be recycled. “Then,” he says, “we had to find out what the situation was in our town. So we sent out a survey.”

What they found amazed them: Of the people who answered the survey, only one in eight even knew what e-waste was, let alone how to properly dispose of it. One man had dug a huge hole in his backyard and dumped about 50 old Mac computers inside it. “It was a business he had,” Alex says. “He brought up old computers, took the valuable parts he could resell, and then dumped everything else. He didn’t see anything wrong with that.”

Alex and his friends went into action. They advertised in the local newspapers and distributed notices to students, asking residents to bring their unwanted electronics to the school parking lot. The drive lasted 2 days, and they collected over 21,000 pounds (over 9,500 kilograms) of e-waste, including the school system’s obsolete computers, which were being stored in an old school bus.

The next step was to set up a permanent e-waste drop-off center for the town and find a responsible company to recycle the waste. That was when Alex and his friends learned another scary fact about e-waste—some irresponsible recycling companies don’t break down the e-waste and dispose of it safely themselves. Instead, they ship it overseas to countries such as China and Nigeria, where local environmental laws are not enforced and kids their age work at picking apart and burning e-waste (to get at the valuable metals) with no masks or other kinds of protection. After a while, these kids got very sick. “We checked carefully online to make sure the company we chose didn’t do this,” Alex says.

After setting up the e-waste drop-off center, Alex’s team began to think about how to reuse some of the old computers so they wouldn’t have to be recycled. “In our research, we’d learned that reusing is the best way to deal with electronic devices that people don’t want anymore,” Alex says. “That’s because you can save energy and resources. Reusing is seven times more efficient than recycling. If we could refurbish computers ourselves and distribute them to students who didn’t have their own, we could help students in our area and protect the environment at the same time.”

Alex persuaded his school to start teaching students how to refurbish donated computers. These students were able to collect, restore, and distribute 260 computers to kids who needed them. Alex is especially proud of this part of his project. He was thanked on video by the mother of one of the students who got a free computer. “I couldn’t afford to buy a computer for my daughter, so she always had to go to the library to do her homework. Now, thanks to Alex and his group, she can do her homework at home.”

For a lasting solution to e-waste, the drop-off center wasn’t enough. Laws would have to be passed. In 2005, Alex and his team met with state representatives who were pushing for an e-waste bill in Rhode Island. Their bill was very complicated—among other things, it required companies that manufactured or sold electronics to take back e-waste. The bill did not pass. Then, in the spring of 2006, Alex testified at the state house in favor of a new e-waste bill that would simply forbid the dumping of e-waste. He and other supporters talked to legislators, made slide presentations, and collected more than 370 signatures. And this time, they won! The bill became law on July 8, 2006, making Rhode Island the 4th state in the nation to create legislation for the safe disposal of e-waste.

Since e-waste is a global problem, Alex and his friends are spreading their project internationally. With the help of business sponsors, they now have WIN teams in Mexico and three African countries. In 2007, they shipped a full refurbished media center—including ten computers, a printer, a scanning and copying machine, a projector, and a projection screen—to a school in Mexico City. During spring break, they visited the school and made presentations to help educate the students about e-waste. They have also shipped two refurbished media centers to Africa—one to an Internet café in Cameroon and one to a cultural center in Nigeria.

Because of the work of people like Alex and his team, more and more people are getting the message about safe disposal of e-waste. As Alex says, “Today’s technology should not become tomorrow’s toxic trash.”

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