

“Dad, are you sure that this stuff isn’t going to end up poisoning people in China?”

—Daniel Robinson

Flash back to last November: The family and I huddled around the television one Sunday night to watch the CBS venerable news program *60 Minutes*. One of the evening’s segments gave us the story “Following the Trail of Toxic E-Waste.” It detailed what all materials science and engineering professionals know all too well—that e-scrap can be nasty stuff to dispose of as it can contain varying amounts of lead, cadmium, mercury, chromium, polyvinyl chlorides, and other toxic contents that are generally uncool to send to the local landfill—and that can be reclaimed along with a variety of other precious and/or saleable materials if handled properly. So, it is not surprising that the *60 Minutes* story found an army of good do-bee citizens at a recycling event in Denver with tonnes of e-waste to donate for responsible handling. This being *60 Minutes*, however, the story did not end with a warm fuzzy about the good people of Denver doing good for the environment. Nope. The real story was that much of the waste was apparently loaded into shipping containers bound for Hong Kong and, eventually, a nightmarishly polluted town in China. Here, lead is hand melted from printed circuit boards over open coal fires, plastics are burned everywhere, and chunks and shards of broken e-waste form a bizarre dystopian landscape. Unsurprisingly, the town was reported to have the highest dioxin levels in the world with commensurate health problems for the local population.

The story left my family depressed for the people in China, annoyed that the goodwill of the people in Denver was ill-used, mad that legitimate recycling resources were squandered, amazed that many laws seem to have been casually broken, and unsure as to what to do with the growing pile of e-waste in our basement. Oh well, that last worry could wait until another day.

Fast-forward a few months to another day. A story in a local paper announces that a group is collecting e-waste for recycle at a county park for the benefit of local humane societies. Plus, unlike the case with many e-waste recyclers, the collection would be free. Help puppies and save money. Perfect! Here was a chance to clear a trunk load of e-waste out of the house. My kids and I gathered the dusty debris and piled into the car to see the operation in person. After a short wait, some efficient volunteers helped us load our junk into the back of one of several waiting tractor trailers. At this point, my youngest son noted how much this event looked like the scene in Denver on *60 Minutes*, and he asked the question that I quoted above. I replied with insight: “Nah.”

Fast-forward a few weeks: The *Pittsburgh Post-Gazette* reports that an environmental watch dog group (the same one that worked with *60 Minutes*) traced much of the scrap collected at our local recycle event to cargo containers destined for Africa and China. Now, the U.S. Environmental Protection Agency is investigating the company that ran the collection. As a guy who feels bad to throw away a cardboard box, I’m depressed at the thought of my 1980s vintage Technics stereo receiver potentially creating a biohazard for some kid on the other side of the world.

So much for a cheap solution on what to do with our spent toys. For the short term, our collection and regulation systems are in need of a big upgrade. For the long term, more benign materials solutions are in order for e-products. In the interim, it looks like my basement will host the household’s next-generation e-scrap for some time to come.



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