

Technology's Graveyards

Discarded computers, smartphones, and other devices decay in landfills or are incinerated, releasing dangerous amounts of toxic chemicals—lead, cadmium, polyvinyl chloride—that leach into the ground or are released into the air.¹ Internationally, about 20 to 50 million tons of electronics are discarded each year.²

Much of the e-waste from developed countries ends up in China, India, and developing West African nations. For example, in 2005, 50-80% of the 2.6 million tons of e-waste generated by the U.S. was exported to other countries for disposal.³ Workers in these poorer countries then break down the electronics to resell valuable materials, but lacking the tools to properly dispose of the toxic components, they endanger their own and others' health and safety. A report by Green Cross Switzerland estimates that about 250,000 people are affected by the toxic fumes from an e-waste landfill in Accra, Ghana.⁴ Another study found that the area surrounding an e-waste dump in Guiyu, China, had lead levels 50% higher than the safe standards set by the Centers for Disease Control and Prevention.

To tackle this problem, some propose government regulation. European Union electronics manufacturers, for example, are now required to take back used electronics and recycle or dispose of them locally.⁵ Some areas in the United States have passed similar laws, but most take-back programs in America are still voluntarily started by companies.⁶ The Basel Convention, ratified by many countries but not the U.S., puts limits on the transport of hazardous waste across borders.⁷ The Ban Amendment, not yet widely adopted, completely bans the transport of hazardous waste from developed nations to developing nations.^{8,9} Even among those countries who have signed the convention or the amendment, enforcement has proven extremely difficult: Inspections of 18 European ports in 2005 found that up to 47% of the waste being shipped was illegal.¹⁰

Others argue that this problem should be tackled by reducing the amount of waste we produce. This responsibility would fall on both manufacturers who would need to rethink the notion of “planned obsolescence” (intentionally manufacturing products with short lifespans so that consumers are compelled to buy new ones) and on consumers who need to rethink the notion of “perceived obsolescence” (the rush to discard functional devices when newer versions are marketed).¹¹ Both of these factors have increased the rate at which we replace our technology: According to Greenpeace, “the average lifespan of computers in developed countries has dropped from six years in 1997 to just two years in 2005.”¹²

STUDY QUESTIONS

1. Are governments morally permitted or required to regulate the disposal of their country's waste? Why or why not?
2. Is it morally permissible for developed nations to sell potentially hazardous e-waste to willing buyers in developing nations?
3. Do manufacturers have a moral obligation to take back and dispose of the products that they create? Do consumers have a moral obligation to participate in this process?
4. Do manufacturers have a moral obligation to create products with longer lifespans, even if they would earn less money as a result? Similarly, do consumers have a moral obligation to keep products as long as they can, even if they would prefer to replace them? Explain.

¹ <http://ewasteguide.info/hazardous-substances>

² <http://www.greenpeace.org/international/en/campaigns/detox/electronics/the-e-waste-problem/>

³ <http://www.pbs.org/frontlineworld/stories/ghana804/map/map.html>

⁴ <http://www.theafricareport.com/West-Africa/ghana-e-waste-pollution-plagues-accras-agbloboshie.html>

⁵ http://ec.europa.eu/environment/waste/framework/pdf/BPE%20Inspection/9.%20Inspection_WEEE%20enforcement%20-%20addressing%20leakage%20in%20the%20take-back%20scheme%20%28NL%29.pdf

⁶ <http://www.pbs.org/frontlineworld/stories/ghana804/resources/ewaste.html>

⁷ http://legal.un.org/avl/pdf/ha/bcctmhwd/bcctmhwd_e.pdf

⁸ <http://www.basel.int/Implementation/LegalMatters/BanAmendment/tabid/1484/Default.aspx>

⁹ https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-38&chapter=27&lang=en

¹⁰ <http://www.greenpeace.org/international/en/campaigns/detox/electronics/the-e-waste-problem/where-does-e-waste-end-up/>

¹¹ <http://www.green24.com/science/plannedobs.php>

¹² <http://www.greenpeace.org/international/en/campaigns/detox/electronics/the-e-waste-problem/>

