



New War on Waste

Used PCs and other electronics can find life after death—if they go to the recycler.

In Partnership With:



Electronics
TakeBack
Coalition

TAKE IT BACK. MAKE IT GREEN. RECYCLE RESPONSIBLY.



In 2005, a Swiss technician analyzed a computer hard drive that had been snatched a few days earlier from a Nigerian salvage yard, and made a shocking discovery: It contained e-mails and other data that were once the personal domain of a World Bank employee.

It was the ultimate nightmare. Confidential data had survived a shoddy disposal process. But there was more to the story. The long-forgotten electronic machinery had become part of a toxic heap, contaminating water sources and endangering locals' health—and it had all been captured in a documentary called *The Digital Dump*.

The film focused attention on the risks that confront just about every business and agency when it's time to retire their old computers and other electronic equipment. Viewers can't help wondering whether their own organizations' cast-off electronics might be languishing in a landfill pile in some forgotten part of the world—and whether liability for the sloppiness might eventually haunt them.

Their concerns are well-founded. In the U.S., recyclers of computers, cellphones, and other high-tech electronics don't require certification. At the same time, most companies have neither the resources nor the expertise

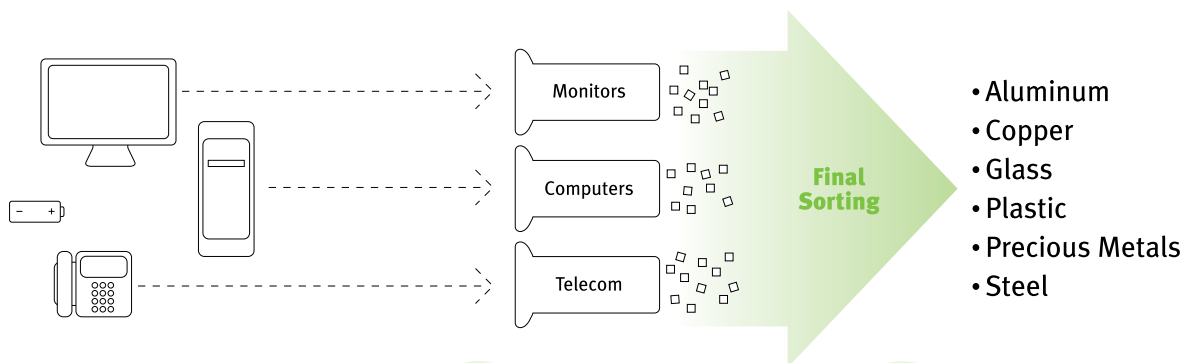
to assess whether the recycler they've hired to haul away their used electronics is using best environmental and data-destruction practices or slyly cutting corners.

"You know this electronic stuff is toxic, so you bring it to a recycler, and you think you're going to do the world a service," says Jim Puckett, lead investigator for *The Digital Dump* and coordinator of the Basel Action Network (BAN), a trade watchdog program started in 1997 by Earth Economics, a nonprofit based in Seattle. "Unfortunately, it's very likely to get almost immediately put on a container ship and sent to China, where what happens to it is probably worse than if you put it in one of our landfills."

Avoiding Toxic Shock

To date, advocates for standards in e-waste recycling, or e-cycling, haven't had much success. The U.S. government, unlike the European Union, has declined to prohibit the export to developing countries of the lead- and barium-containing cathode ray tubes found in televisions and desktop monitors and other types of dangerous e-waste. Some manufacturers of electronic equipment have agreed under pressure to take back their products for free, including Dell and Sony. A few others take back certain types of equipment under specific circumstances.

E-Scrap Meets Its re-Maker



1 Sort
Monitors, TVs, cellphones, and more—each gets categorized for maximum recycling efficiency.

2 Shred
When stored information needs to be eliminated, a thorough shredding process sends data to the graveyard.

3 Recover
Specialized facilities capture the intrinsic value of metals, plastics, and glass.

No company wants to explain why its data got stolen or why its electronic waste made people sick in developing countries. That's why Global Investment Recovery is doing a brisk business, processing 65 million pounds of e-scrap in 2007, at its facilities nationwide. GIR eliminates e-data with an on-site shredding process rigorous enough for the Department of Defense. With GIR, e-scrap never gets shipped to unsafe

salvage yards. Instead, environmentally sound processes extract precious metals and recyclable material finds its way into new products. Corporate clients rest easy knowing GIR is fully insured with coverage that includes pollution liability, and carries ISO 14001 certification—an internationally recognized environmental credential. And who doesn't have better things to worry about than the status of yesterday's electronics?



This means the onus falls on the owners of most equipment to make sure their disposal processes are legal, socially responsible, and prudent.

“The challenge for corporate America is that there are almost no laws that deal with the things you need to worry about,” says Barbara Kyle, national coordinator of the Electronics TakeBack Coalition, a network of nongovernmental organizations that have joined forces to try to get electronics manufacturers to recycle their products. “There are no effective laws about data destruction or exporting. This means a recycler who merely follows the law comes nowhere close to providing a client company with liability protection.”

Despite the challenges, companies saddled with e-waste are finding reputable recyclers that can help defend them against liability claims and sometimes even put a little money back in their pockets. They’re doing it by working with companies on BAN’s list of e-Stewards, e-cyclers that have pledged to maintain their industry’s highest standards. (For more information, see www.e-stewards.org.)

The 37 e-cyclers on the BAN list have pledged not to use problematic practices, such as exporting hazardous e-waste to developing countries or shipping it to domestic landfills or incinerators where toxic components can endanger public health. They have also promised to make every effort to utilize the world’s most efficient and least polluting techniques for recovering precious metals, such as sending circuit boards to one of five properly equipped smelters in the world, all of which are located in developed countries outside the U.S. Before approving an e-cycler, BAN investigates output, making sure all materials are going where they’re supposed to go.

This year BAN is making the e-Stewards rules even tougher. It is adding data destruction criteria and developing a system for independent auditing of all e-Stewards. As might be expected, the list of BAN members already includes the leaders in responsible data-destruction. Example: Global Investment Recovery (GIR) of Tampa, Fla., which counts as its largest client the U.S. Department of Defense, whose requirements for data eradication are as rigorous as anyone’s.

Digital Disposal

Many of the companies doing business with BAN’s e-Stewards have discovered that e-cycling, when done properly, can pay dividends. For Paragon Development Systems (PDS), an IT services company based in Oconomowoc, Wis., helping clients derive value from the retirement of electronics is an essential part of its business. Paragon outsources that task on behalf of about 50 clients—including nationally known retailers and health-care organizations—to Cascade Asset Management, an e-Steward firm based in Madison, Wis.

Using Cascade is a no-brainer, says Kerry Marti, PDS vice president of product services. Thanks to Cascade’s audit trail, “there’s no worrying” about what happens to data and materials. And by making sure a whopping 75% of materials get reused in new products, Cascade provides PDS clients with valuable bragging rights in an age when demonstrated respect for the environment goes a long way.

Similarly, Phoenix Park Gas Processors Ltd., which does business in Point Lisas, Trinidad, saw a chance to become a corporate leader while freeing up much-needed storage space. Phoenix hired e-cycler Piranha International Ltd. (located in Couva, Trinidad) to keep 100 pieces of its old equipment out of landfills, where most computers in the Caribbean end up. Instead, it ships hazardous materials to the United States and Canada for proper processing, and donates dozens of refurbished machines to area schools.

Responsible e-cyclers often charge more than those Kyle describes as “low-riders,” which sometimes offer to take everything at no charge. That’s a red flag, she says, suggesting that the firm intends to ship the electronic equipment to dumps in China or Africa, where poor workers risk getting poisoned while extracting tiny amounts of copper or lead. Or, she says, the

Planet Protector

We are a technology asset-management company, offering cutting-edge services ranging from bespoke software development to end-of-life recycling of electronics, plastics, fluorescent bulbs, toner cartridges, media tapes, and batteries. Based in Trinidad and Tobago, we are also the only e-Steward outside of North America.

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low-roader may simply dump the machines in a nearby lake, as happened to computers from St. Paul's Hamline University in 2006. The university paid more than \$30,000 to clean up its e-cycler's mess.

These green-conscious recyclers can also directly enhance a company's bottom line. Global Investment Recovery, for instance, specializes in recovering metals such as copper and aluminum, whose prices have soared in recent years. That means older electronics with negligible resale value—such as cellphones or laptops with Pentium 2 processors—undergo some of the world's most advanced and environmentally secure recovery processes. GIR sends the client a check based on the value of reclaimed metals.

Cascade also helps clients recoup value. According to Marti, most of his clients break even. The checks they receive for resold equipment generally covers all of Cascade's e-cycling fees. Another 10% to 20% of clients actually show a net gain. Example: A financial services firm, which up-



grades equipment every three years, netted more than \$90,000 through Cascade's remarketing of equipment it retired in 2007.

Of course, the greatest value companies derive from dealing with high-quality e-cyclers is peace of mind. Working with GIR, for instance, means coordinating with an organization whose chief executive, David Ritter, has been in the business of electronics recycling for 31 years. The firm gets audited

by an independent third party every year to certify its ISO 14001 status, an internationally recognized seal of environmental responsibility.

"We're typically dealing with large corporate clients who are concerned about brand protection," Ritter says. "They don't want their material sold into the gray market or on eBay. We act as a shield from litigation."

Too bad all e-cyclers can't say the same. ●

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