“Regardless of how dynamic or economically viable the modern fashion industry is, it is creating a gross over-abundance of used clothing, releasing a plethora of stuff into the waste management stream.” –DR. JANA HAWLEY
When was the last time you cleaned out your closet? If you are like most Americans, chances are, it has been a while. And when you do get around to the dreaded task, the pile of clothes you don’t want will likely include items that have been worn only a handful of times – or maybe never at all. Most people box up items they deem wearable for charities such as Goodwill or Salvation Army. Everything else, such as faded T-shirts and old underwear, goes on the curb.
According to the Environmental Protection Agency, approximately 4 million tons of textiles go into American landfills each year. “Regardless of how dynamic or economically viable the modern fashion industry is, it is creating a gross overabundance of used clothing, releasing a plethora of materials into the waste management stream,” says Dr. Jana Hawley, chair of the Textile and Apparel Management department. “The good news is, because textiles are nearly 100 percent recyclable, this potential landfill disaster can be averted.”

The challenge is teaching consumers what to do with their unwanted clothes. “The goal is to have zero waste, to convince consumers there’s no reason we can’t use this,” says Hawley, whose research focuses on post-consumer waste: items that have been purchased, worn, and then discarded because they’re worn out, damaged, the wrong size, or no longer in style. These items should all go to an organization such as Goodwill. Yes, even that old underwear! The store will decide what items are sellable. Dr. Hawley gives the example of an El-Paso based company, MidWest Textiles, which receives a semi-truck load of used goods every day—that’s about 10 million pounds of textiles per year. “This is then emptied onto a conveyor belt and sorted into approximately 400 categories,” she says. “Highly trained sorters mine for certain high-value items, particularly vintage pieces.” These collectables are called “diamonds” because they fetch high prices in certain markets. Harley Davidson paraphernalia, military issue leather bomber jackets, and Boy Scout uniforms often fall into this category. Diamonds account for about 1 percent of the total volume of recycled textiles, but they also account for the largest profits. In 2001, for example, a 120-year-old pair of Levis sold for $43,532 on eBay.

Once the diamonds and other sellable items are sorted and removed, goods are compressed into 600- to 1,000-pound bales that are wrapped and warehoused until an order for export is received. Many bales—roughly 48 percent of second-hand clothing—go to disaster relief efforts or developing countries. “By carefully sorting and selling our used clothing to the closely established networks that have been honed over the generations—the appropriate clothing is shipped to Africa, and her people are clothed at a cost that is fair,” says Hawley, noting a Ugandian woman can purchase a designer T-shirt for 1.20 USD. She also points out that Africa is not simply a dumping ground for Americans’ unwanted items—a lot of thought goes into what items are sent there. “Most Africans disdain skimpy tops and mini-skirts. Shirts sell not because of their designer label, but rather because of their bright colors or more appropriate [smaller] sizes.” The U.S. annually exports nearly $62 million in sales to Africa.

Some items—approximately 29 percent—are converted into new products. Fabric is broken down into fiber through cutting, shredding and carding and then reengineered into value-added products, such as mattress stuffing, envelope padding or even the insides of punching bags. The soles of some running shoes are used to make athletic tracks, and the wood from mattress box frames is used to make flower planters or Adirondack-style chairs. A company in Prato, Italy, transforms wool and cashmere sweaters into blankets for the luxury market. Increasingly, some reclaimed fiber is used in paper making or insulation materials.

As you might imagine, organizations such as Goodwill or Plato’s Closet receive many more items than they can sell, so they offload many of them to

MAKE IT “NEW” AGAIN!

If you’re not quite ready to part with your old clothes, consider repurposing them yourself. “It can be as simple as making a reusable tote bag for grocery shopping out of T-shirts or as inventive as making a hat out of old bras,” says PhD student Jessica Ridgway (who actually did make a Victoria’s Secret bra-hat for a creative design class). “I think that everyone focuses on just donating old clothing, but if you get creative you can find ways to reuse or re-purpose your own items into something new that you can enjoy!”

MidWest Textiles recycling company in El-Paso, Texas (left and right) sorts through semi-truck loads of goods every day to search for the high-value items and then categorize the rest to be compressed and baled for export.
Few people know that a textile recycling industry exists outside charity organizations. Instead of setting your unwanted items out for the trash man, donate everything to your local charity (Goodwill, Salvation Army, Plato’s Closet, etc.) – even stained or damaged items. These organizations will shuffle items through the pipeline to recycling companies (so don’t worry about dealing directly with recycling companies, which only deal with large quantities of clothing). The benefits of textile recycling include:

- Avoids the punitive costs of landfill
- Provides employment
- Helps charity
- Moves clothing to areas of the world where it is needed

**Resale clothing stores, such as Goodwill, will take all of your donated items and then determine what is sellable and what will be passed along to a recycling company for other uses.**

**Textile Recycling Tips**

Pre-consumer waste from Fruit of the loom t-shirt production that will eventually be spun into new yarns

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for-profit textile recycling companies. In Columbia, for example, there is no local for-profit recycling company, so a company in St. Louis sends trucks to carry away the excess items. This is something Dr. Hawley wants to change. “Many municipalities do not offer any—let alone convenient—textile recycling, and this is their loss,” she says. “It often proves lucrative and can subsidize the rest of a recycling program. The typical solution to this problem requires setting up big waterproof boxes that donors can drop their items into.” Hawley explains that most of the 500-or-so U.S. recycling companies employ fewer than 50 workers. These small businesses contribute to the local tax base and generate more than $700 million in annual gross revenue.

Dr. Hawley recently spearheaded a movement to bring textile recycling to Boonville, Mo. With the help of 12 fashion-merchandising students, she set up Savvy Seconds in conjunction with Unlimited Opportunities, a social service center that offers job training for physically and mentally challenged adults. Hawley’s students trained these workers to sort clothing and shoes. The clothes were either sold in Savvy Seconds or baled and sold to for-profit recyclers. “Today, Savvy Seconds has grown to a recycling house that not only sells used clothing, but also recycles aluminum, plastics and cardboard—a much needed resource for the rural community,” Hawley says. “It’s an economic, environmental, and human success story.”

Editor’s note: On Feb. 2, 2012, a fire destroyed the building housing Savvy Seconds and Unlimited Opportunities. As of press time, they were making plans to relocate their facilities.