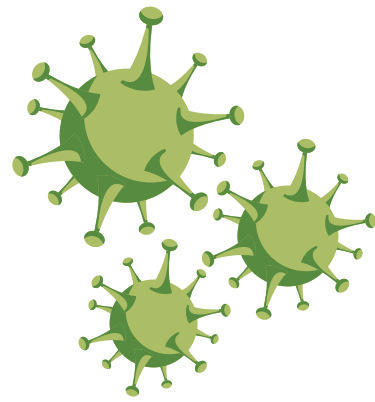# Pandemics + *waste*

Panic Buying + Shortages

The COVID-19 pandemic of 2020 changed many parts of daily life, including what people bought and how much waste they created. When the pandemic began, stores ran out of essentials like toilet paper, hand sanitizer, and disinfectant wipes because people were afraid they would not be able to buy them later. This sudden rush to buy supplies is often called panic buying. It led to shortages and increased packaging waste from single-use items.

Plastic Use

Restaurants and coffee shops also changed how they served food. Many switched to takeout and delivery, using disposable containers, plastic utensils, and single-use cups, creating more plastic waste. Some cities that had banned plastic bags and straws reversed their rules during the pandemic to prevent the spread of germs.

Increase in Medical/Safety Waste

Another major shift was in medical waste. Hospitals used more personal protective equipment (PPE) like masks, gloves, and face shields. Even everyday people wore masks and used disposable wipes and gloves, which often ended up littering streets, clogging storm drains, and filling up landfills. Additionally, many stores used plastic or plexiglass dividers to keep cashiers and customers separated. Disposing of these large dividers when they were no longer needed created a temporary increase in this unusual waste material.

Rise of Online Shopping

Another impact was the rise of online shopping. With lockdowns and social distancing in place, people ordered more groceries, clothes, and household items online. This caused a huge increase in cardboard boxes, plastic wrapping, and Styrofoam packaging in the waste stream. Many recycling centers struggled to keep supply and demand in balance.

Future Changes

Despite these challenges, the pandemic also led to some positive changes. Many people became more aware of waste and looked for ways to be more sustainable. Some companies created compostable packaging, and others encouraged reusable masks instead of single-use ones. The pandemic showed how quickly consumer habits can change and how important it is to find ways to reduce waste, even during global emergencies. As we move forward, scientists, businesses, and communities continue to look for better ways to balance health, convenience, and sustainability. The next time you throw something away, think about where it goes and how small changes—like recycling, reusing, or reducing waste—can help make a big difference!

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Fast Food, Takeout, + *waste*

The Rise of Disposable Packaging

The rise of fast food, takeout, and food delivery has changed how we eat—and how much waste we produce. What was once a rare treat has become part of everyday life, leading to a "disposable lifestyle" that creates serious environmental challenges.

Growth of Single Use Plastic

In the early 1900s, most food was prepared and eaten at home, generating little packaging waste. By the 1950s and 1960s, fast food chains like McDonald's, Burger King, and KFC popularized disposable packaging to make meals easier to carry and eat. Today, single-use packaging is a major waste contributor, with about 40% of plastic waste in the U.S. coming from food packaging. In 2018 alone, nearly 12 million tons of containers and wrappers including plastic straws, forks, and cups ended up in landfills.

Food Delivery and Increased Waste

The rise of delivery apps like Uber Eats and DoorDash has only increased the amount of waste. Many takeout meals come with excessive plastic bags, foam containers, and extra utensils. Studies show that nearly one-third of all packaging waste now comes from food and drink containers. Styrofoam, commonly used in fast food packaging, is particularly harmful because it doesn't break down easily and is rarely recyclable. In the U.S., consumers discard nearly 3 million tons of Styrofoam each year.

Efforts to Reduce Packaging waste

As food delivery continues to grow, experts predict that waste will keep increasing unless new solutions are found. Some cities and states have taken action by banning single-use plastics or encouraging reusable containers. Individuals can also help by reducing packaging waste, using their own containers, or supporting businesses that offer eco-friendly options.

Making Sustainable Choices

Fast food and food delivery have made life more convenient, but they have also created a serious waste problem. Compared to the past, today's packaging habits put enormous pressure on landfills and the environment, not just because of the types of material that are used but also because of the increase in the amount of waste being generated. Making sustainable choices, even small ones, can help reduce this growing issue.

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Fast Fashion
+ *waste*

The Rise of Fast Fashion

The rise of fast fashion—cheap, trendy clothing designed for short-term wear—has dramatically increased clothing waste. Unlike in the past, when clothes were made to last and often repaired or handed down, today's fashion habits encourage frequent buying and disposal.

Changing Clothing Habits

For most of history, clothing was carefully made, mended, and reused. People owned only a few outfits, and fabric was considered valuable. That changed with the introduction of cheap synthetic materials like polyester and mass-production techniques. Since 2000, global clothing production has doubled, and the average person now buys 60% more clothes than they did 20 years ago. However, they also keep those clothes for only half as long.

The Environmental Impact of Clothing Waste

More than 11 million tons of clothing waste end up in U.S. landfills every year—about 2,150 pieces per second. Many garments are made from synthetic materials that don't break down easily, adding to long-term waste problems. Producing clothing also uses enormous amounts of water and energy. A single cotton T-shirt can require about 2,700 liters of water—the amount one person drinks over 2.5 years. Additionally, fabric dyes and chemicals can pollute rivers and harm wildlife.

Solutions for Reducing Clothing Waste

To reduce waste, people can buy fewer, higher-quality clothing items, repair items instead of discarding them, and donate or recycle what they no longer wear. Some companies are also adopting sustainable fabrics and recycling programs.

Shifting Toward Sustainability

Compared to the past, today's clothing habits create far more waste. By making better choices, we can reduce the amount of clothing piling up in landfills.

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Online Shopping
+ *waste*

How Online Shopping Has Changed Packaging

Online shopping has made it easier than ever to buy what we need, but it has also led to an explosion in packaging waste. Orders often arrive wrapped in cardboard, plastic, and other materials, increasing the amount of trash we generate compared to past shopping habits.

The Growth of E-Commerce

Before online shopping, most purchases were made in stores and required minimal packaging. People often carried items home in reusable bags or brought their own containers for certain goods. But today, with the rapid growth of e-commerce, shopping habits have changed dramatically. In 2022 alone, people worldwide spent over $5.7 trillion online, and 131 billion packages were shipped in the U.S. Each one includes packaging, like boxes, plastic wrapping, and packing materials like bubble wrap or air pillows.

The Environmental Cost of Packaging

The demand for packaging has skyrocketed, with global cardboard use increasing by 30% since 2010. In the U.S., about 40% of plastic waste now comes from packaging, much of which ends up in landfills. The materials used—such as bubble wrap—can take hundreds of years to break down, and their production uses energy and generates greenhouse gases.

Efforts to Reduce Waste

To reduce packaging waste, some companies are switching to recyclable or biodegradable materials, and many offer minimal-packaging options at checkout. Consumers can help by combining orders, supporting eco-friendly businesses, reusing boxes and packing materials, and shopping locally when possible.

Rethinking Shopping Habits

Compared to the past, when shopping generated little waste, today's online shopping habits have created a major waste challenge. Thoughtful shopping choices can help reduce this growing problem.

Add to Cart

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Electronics + waste

The Growing Problem of E-Waste

Technology has made life easier, but it has also created a new kind of waste: e-waste, short for electronic waste. Devices like cell phones, tablets, and laptops are constantly being replaced with newer models, leading to one of the fastest-growing waste problems today.

From Durable Electronics to Disposable Gadgets

In the past, families owned only a few electronic devices, such as a single television, radio, or telephone, and they kept them for many years. Repairs were common, and electronics were considered long-term investments. Today, however, people own multiple devices, and companies release new models frequently. For example, in 2022 alone, about 1.4 billion smartphones were sold worldwide, and surveys show that Americans replace their phones every 2-3 years on average, even if they still work.

The Environmental Cost of E-Waste

Constant upgrading generates massive amounts of e-waste—about 50 million tons each year, or the weight of 4,500 Eiffel Towers. Unfortunately, only about 17% of e-waste is disposed of using best practices, while most ends up in landfills or is shipped to developing countries where it can cause environmental harm. Electronics often contain toxic materials like lead, mercury, and cadmium, which can pollute soil and water. They also contain precious materials that are only found in limited supply, so valuable resources are lost when best practices for disposal are not followed.

Solutions for Reducing E-Waste

To combat e-waste, many companies now offer trade-in programs, allowing old devices to be recycled or refurbished. Consumers can help by keeping their devices longer, repairing them when possible, and donating or disposing of them responsibly when the time comes. Manufacturers can also work to create devices that are more durable, focusing on updates to functionality instead of upgrades in device.

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Synthetic Materials
+ *waste*

The Rise of Plastic

The invention of synthetic materials, especially plastic, has transformed daily life. Lightweight, inexpensive, and versatile, plastic is used in everything from packaging to electronics. However, these same qualities make it a major environmental problem. Over the past few decades, plastic waste has grown rapidly, creating challenges that didn't exist in the past.

Life Before Plastic

Before plastic was invented, people relied on natural materials like glass, metal, wood, and fabric. Containers were made of clay or metal, and clothing was woven from cotton, wool, or linen. These materials were durable and reusable, but they were also heavier and more expensive to produce. Waste was usually biodegradable or recyclable, meaning it didn't stick around for centuries.

The Growth of Plastic Use

Plastic was first developed in the early 1900s, but it didn't become widely used until after World War II. Since then, it has become a part of nearly everything we use, like water bottles, shopping bags, clothing, food wrappers, toys, and electronics. Global plastic production skyrocketed from just 2 million tons in 1950 to over 413.8 million tons per year in 2023.
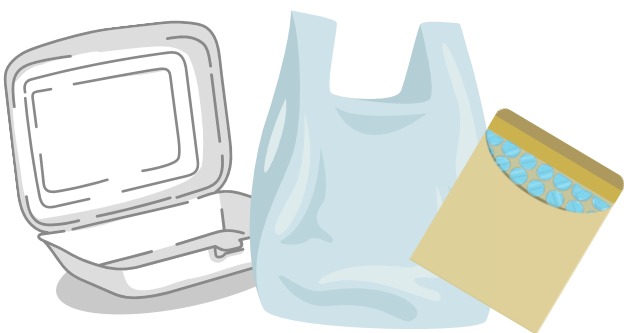
The Problem with Plastic

A big problem is that much of this plastic is designed for just one use. Around 40% of all plastic is used for packaging, such as grocery bags, wrappers, and takeout containers. These items are often discarded within minutes. In the U.S. alone, people used about 100 billion plastic bags in 2021, with each one being used for an average of only 12 minutes before being thrown away.

Unlike natural materials, plastic doesn't break down easily. It can take hundreds of years to decompose, meaning nearly all plastic ever made still exists in some form. In 2018, the U.S. generated about 35 million tons of plastic waste. About 8.7% was recycled, but the rest ended up in landfills, incinerators, or as litter in the environment.

Plastic pollution is especially harmful to wildlife. Tiny pieces of plastic, called microplastics, are now found everywhere—in the air, in the soil, and even in the water we drink.

A Sustainable Future

In the past, waste was mostly natural and reusable, but today's dependence on plastic has created a long-lasting waste problem. Reducing plastic waste requires both better habits and smarter production. People can help by using reusable bags, bottles, and containers instead of single-use plastics, and scientists can continue working on biodegradable plastics that break down faster. Recycling programs can continue expanding, too.

There's still a long way to go, but by making better choices, we can help reduce plastic pollution and protect the planet for future generations.

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