

Textiles Waste

the speedy version!

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Textile Waste

- **The current situation**
- **How did we get here?** A bit of fashion retail history
- **Why is this a problem?** The environmental impact
- **What's being done?** And by whom?
- **How can we have an impact?** The future

What's the current situation?

Our personal consumption

- **How many items of clothing do you own?**
- <50 b) 50-120 c) 120-300 d)300>
- In **2024** the average person in the UK owned **118** items of clothing and spent **3%** of their salary on clothing
- In **1970** the average person in the UK owned **25** items of clothing and spent **10%** of their salary on clothing
- Currently, in the UK, more than **two tonnes** of clothing are bought every minute but **26%** of the contents of UK wardrobes have not been worn in the past year



A little Retail History:

The cost of clothing

- **1500s** a dress would cost around **1 month's pay** to buy
- **1880** - Thanks to the industrial revolution a dress would cost about **1 week's pay**
- **1970s** a dress would cost about **1 day's pay**
- **1980-90s** Cheap manufacturers overseas and Fast Fashion
- **1990s- 2000s** Internet shopping



A Little Retail History: The last few years

- In **2015** Shien was founded, using artificial intelligence, aggressive spam marketing and time-sensitive discounts, creating addiction and overconsumption.
- In **Nov 2023**, H&M launched 23,000 new products in US, Zara 40,000, in the previous 12 months.
- Shien produced **1.5 million** new products in the same time.
- In **December 2023** Shein was bigger than H&M, Primark, ASOS, Boohoo and Forever 21 put together and was worth \$90billion



A Little Retail History:

The last few years

- In **September 2022** Temu was founded, spending \$2billion on marketing, gamifying the shopping experience using influencers and Social Media like TikTok and YouTube using their slogan “shop like a billionaire”
- **2024** Temu had 100 million users - less than 2 years after founding and overtook Shien sales in US
- In **2025** Temu has 292 million monthly active users worldwide (186 million in the U.S, 92 million in the EU, 13 million in UK)
- Today a dress could cost as little as **1 hour's** pay ...leading to over consumption, waste and exploitation



A little Fashion History:

Our disposable society

- For damaged clothing, it's often cheaper and easier to **replace rather than repair**, which results in more waste
- It is **cheaper to incinerate** returned items than reprocess and resell them.
- The **average lifespan** of clothing is 3-4 years, though most are thrown out before then
- It's **expensive to be poor** - Terry Pratchett's Sam Vimes 'Boots' Theory of Socio-Economic Unfairness



What's the problem?

The effects of our consumption

- 150 billion garments are produced every year (NB The world population is 8 billion, so that's about 19 each, every year)
 - 30% of new clothes are never sold
 - **What do you do with your unwanted clothing?**
 - Give to charity?
 - less than 20% of used clothing is recycled in the UK
 - 30% of unwanted clothes end up in UK landfill sites
- ...that's 300,000 tonnes of old clothes, put in the general waste annually in the UK (£140 million worth)



What's the Problem?

The Environmental Impact of Textile Production

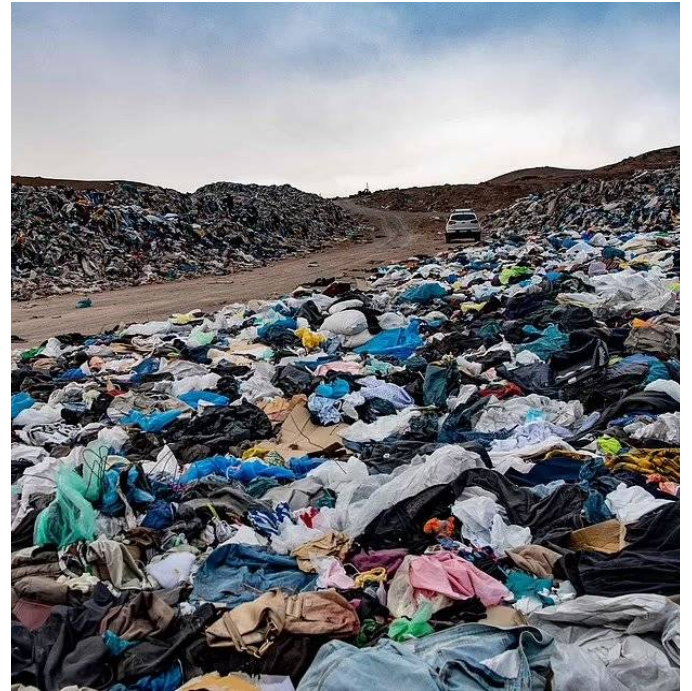
Textile production releases **2 billion tonnes of greenhouse gases** into the atmosphere annually which is

- **10% of global greenhouse gas emissions**, expected to be
- **25% of global greenhouse gas emissions** by 2050

93 billion cubic metres of water is used by the industry each year

Dyeing accounts for almost **20% of global water pollution**

Producing textiles creates **42 million tonnes of plastic waste** each year, **10% of microplastics** that enter the ocean every year are from textiles.



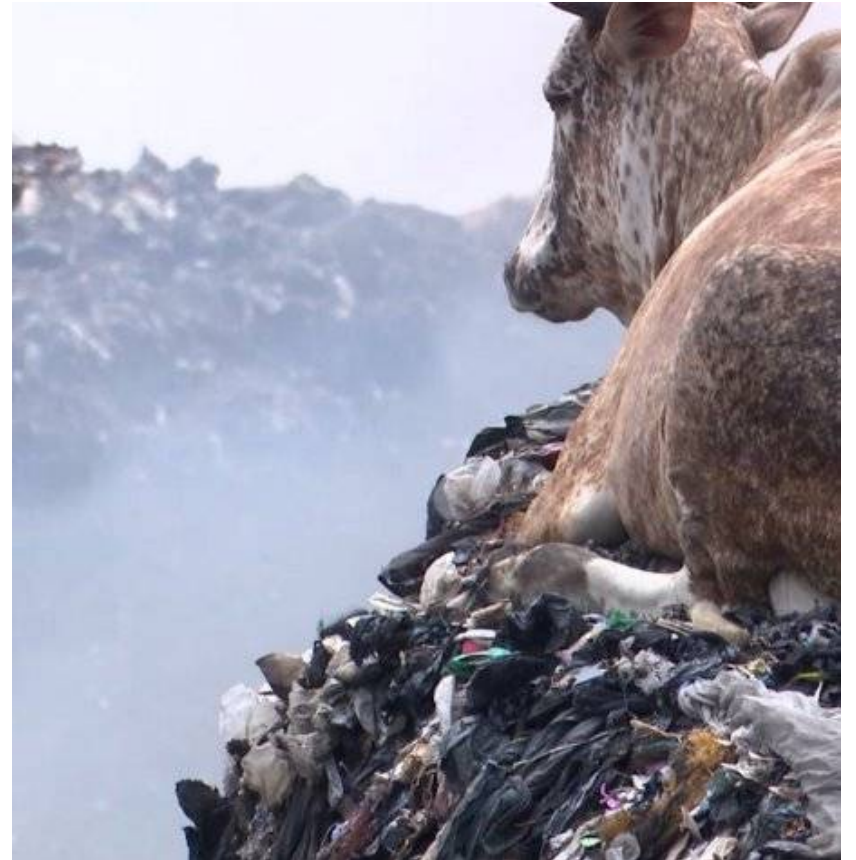
What's the Problem? The Environmental Impact of Textile Disposal and Decomposition

60% of new clothing is made from **synthetic fibres** (from oil) and takes over 200 years to decompose eg polyester, nylon, lycra, acrylic

Man-made fibres (from wood/bamboo pulp) can take from a few weeks to decompose under the right conditions e.g. Viscose, Rayon, Tencel

Natural fibres take from around few weeks to 2 years to decompose e.g cotton, linen, wool, silk

Video 3 mins [13] [Fast fashion: The dumping ground for unwanted clothes - BBC News](#)



So, what's being done? The big stuff

Legislation e.g. Extended Producer Responsibility (EPR) where the producer pays for disposal e.g. California 2024

Growing industry collaboration. e.g H&M and Looop, Primark and WRAP

Upcycling: products with higher value than the original product

Downcycling: products with lower value, such as rags, insulation, or stuffing e.g. Salvation Army

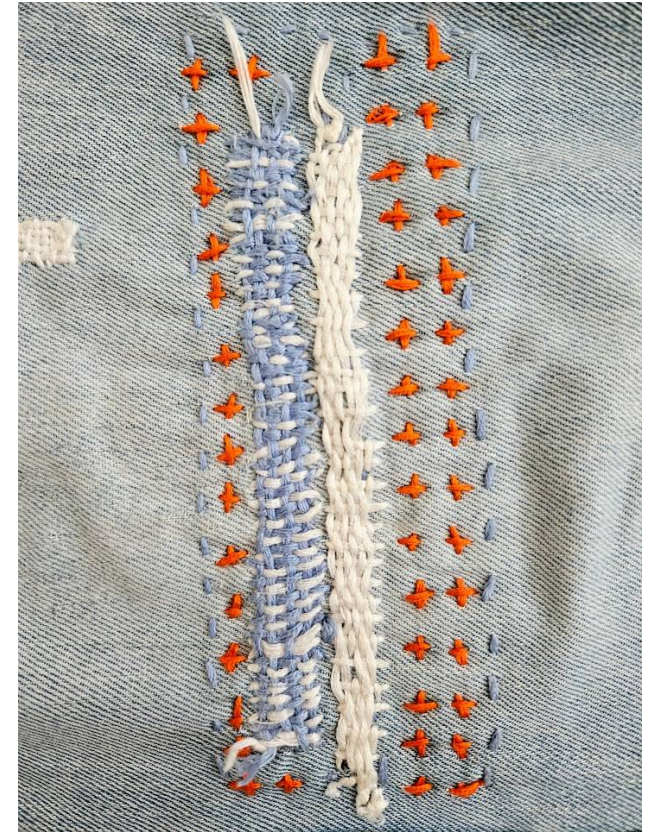
Advancing technological development e.g. better recyclable and durable fabrics

Create **digital product passports** (DPPs) on products using e.g. QR codes with info on material used in product

Increasing consumer awareness and reduction of demand coupled with rising regulatory pressure from governments to encourage recycling and discourage waste.

The Future: What can we do?

- **Recycle** unwanted items, buy/sell **second hand**
- **Repair** and **repurpose**, use a repair cafe
- Improve repair **skills**, visible mending e.g. Sashiko
- **Rent/hire** clothes instead of buying them
- Clothes **swap**, clothing banks
- **Shop locally** from reputable companies
- Consumer **awareness**: reduce over-consumption
- **Buy less**, better quality items



The Future:

It's not all doom and gloom

- Younger people increasingly buy **second hand** most likely to have already engaged with the **Circular Business Models**
- Research indicates that we are **keeping items of clothing for longer** and repaired items last on average an extra 1.5 years.
- Temu and Shien **profits are being hit** by US tariffs and changes to de minimis tax rules
- As of February 2025, Shein was valued at \$30 billion (down from \$90 billion in 2023)



The future: What needs to change?

- **Consumer behaviour and demand** e.g. education, awareness, incentives, preferences, trends, and social values
- **Political will** e.g. public opinion, regulations, policies, taxes, international cooperation
- **Technological innovation and development** e.g. new products, investment.





Summary:

What have we covered today?

- What is the current situation ?
- How did we get here?
- Why is this a problem?
- What's being done?
- How can we have an impact?



Conclusion:

What are your take-aways?

- What's the most alarming/interesting thing you have learned today?
- What do you think you might do as a result of this session?
- Any Questions?



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References

WRAP (Waste and Resources Action Programme) [Citizen Insights: Clothing Longevity and Circular Business Models Receptivity in the UK | WRAP](#)

[Fashion Waste Statistics & Facts | Textile & Clothing Waste Facts \(businesswaste.co.uk\)](#)

Textile Recycling: Latest Trends, Challenges and Opportunities
(thetextilethinktank.org)

[Sam Vimes 'Boots' Theory of Socio-Economic Unfairness | Terry Pratchett](#)

[The fast fashion graveyard in Chile's Atacama Desert - BBC News \(3 minute video- Chile\)](#)

[Fast fashion: The dumping ground for unwanted clothes - BBC News \(3 minute video - Ghana\)](#)