

Reuse and Repair

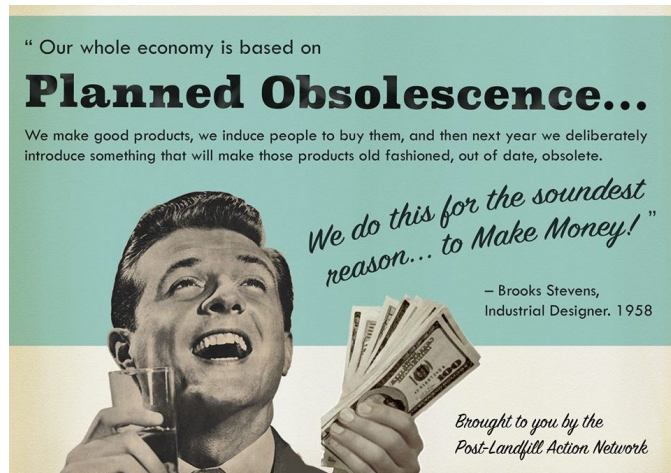
or

(why and how to keep using our stuff!)



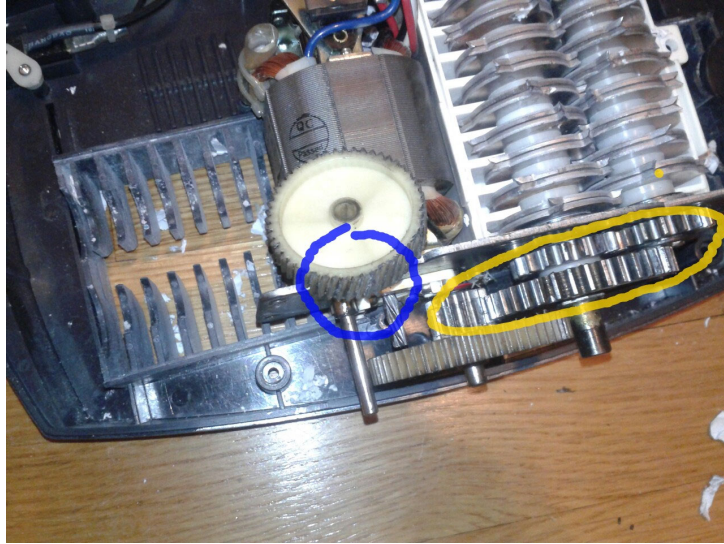
Planned Obsolescence

A policy of planning or designing a product with an artificially limited useful life, so that it becomes obsolete after a certain period of time.



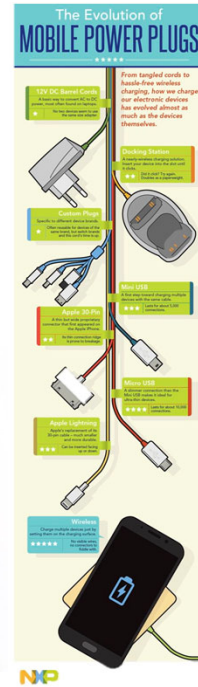
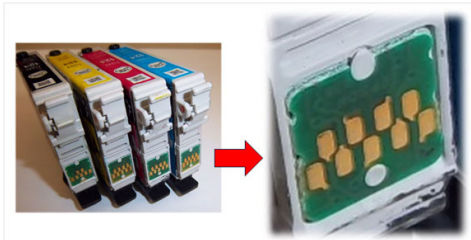
Our economy is based on the consumption of stuff. And it is mostly designed to go in one direction. We mine or cut down trees, manufacture products, ship them to consumers, use them and then toss them. Some items even only get used for a few minutes. On concept that keeps products moving is a policy called Planned Obsolescence. A policy of planning or designing a product with an artificially limited useful life, so that it becomes obsolete after a certain period of time. Planned obsolescence shows up in many ways.

Contrived Durability



One strategy of shortening the life of a product happens before it is released onto the market, by designing it to deteriorate quickly. Everything breaks down eventually, but during the design phase of a product, choices can be made to lengthen or shorten a products lifetime. This can include sensitive components of a product near a heat source, or using plastic and metal gears on one another, where the metal breaks down the plastic faster than if they were all metal or all plastic.

Systemic and Programmed Obsolescence



Another strategy is the deliberate attempt to make a product obsolete by altering or “updating” the system without ensuring that the old system is compatible. Most of us have experienced that a phone stops working after so many updates and you have to buy another one. Companies also routinely change screws or fasteners or chargers so they cannot be easily operated with existing tools.

Stylistic Obsolescence



Another strategy is called Stylistic Obsolescence. It occurs when designers change the styling of products so customers will purchase products more frequently due to the decrease in the perceived desirability or unfashionable items. Buys into a sense of “social status” by having the latest greatest thing (consumer envy), and the endorphin rush of buying.

The Clothing Industry



Nowhere is stylistic obsolescence more obvious than in the clothing industry. Fashion is constantly changing to keep us returning to the malls to shop.

THE AVERAGE
CONSUMER BUYS
60% MORE
CLOTHING
PER YEAR
THAN 15 YEARS AGO



... and keeps it only half as long.

The average consumer buys 60% more clothing per year than 15 years ago and keeps it only half as long.



Worldwide, clothing production doubled between 2000 and 2014. By 2014, the number of garments exceeded 100 billion.

Many of those garments are low quality, and don't last as long as they used to. In fact, the life of consumer products, like clothing, shortened by 50 percent from 1992 to 2002.

LEVI'S® 501® JEAN LIFECYCLE IMPACT

The entire lifecycle of one pair of Levi's® 501® jeans equates to:

Climate Change:
33.4 kg CO₂-e...



- 69 miles driven by the average US car
- 246 hours of TV on a plasma big-screen

Water Consumed:
3,781 liters...

3 days worth of one US household's total water needs

Eutrophication:
48.9 g PO₄-e...

The total amount of phosphorous found in 1,700 tomatoes

Land Occupation:
12 m²/year...

Seven people standing with arms outstretched, fingertips touching, would form one side of a square this size

LEVI STRAUSS & CO. © 2015

LEVI STRAUSS & CO.

The creation of our clothes have heavy impacts on our environment. Here's just the impacts from one pair of jeans.

WHY WE GET RID OF CLOTHING IS PREVENTABLE

RIPPED SEAM (17%)



DOESN'T FIT (65%)



HOLE IN FABRIC (38%)



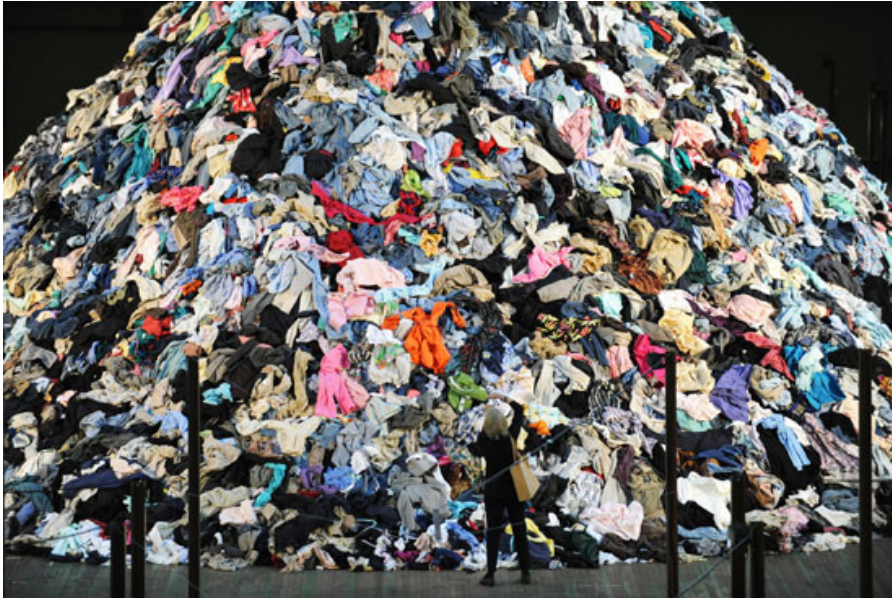
POOR QUALITY (19%)



NO LONGER LIKE IT (33%)



There are a lot of different reasons that we get rid of clothing.



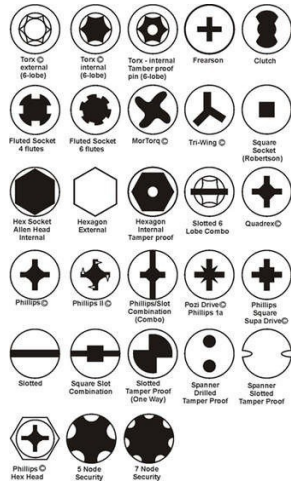
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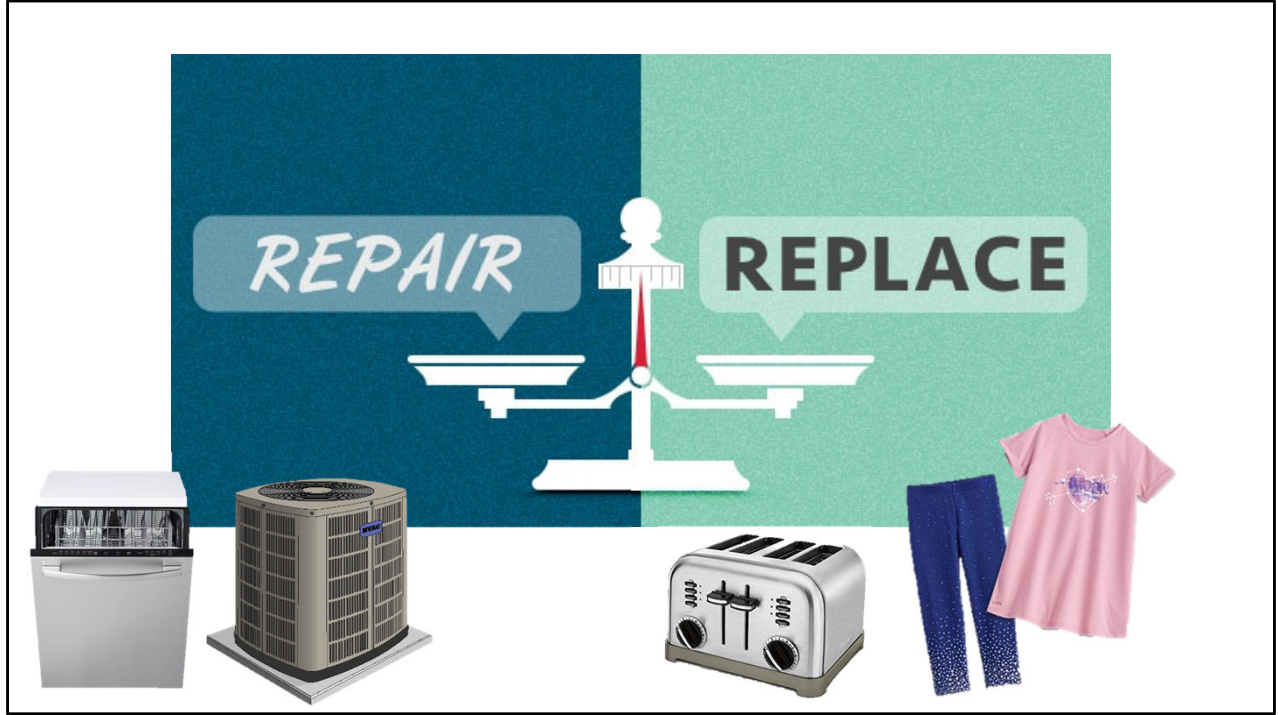


Let's say we donate these items –While donation is probably better than simply trashing it - it is complicated and there may be unintended negative consequences downstream – environmentally, socially, economically that aren't clear or commonly known – over 30 countries have banned or are looking into banning some used clothing imports because they displace the local textile industry or cause problems in their own landfills and environment.

Prevention of Repairs



One final strategy of planned obsolescence I am going to mention is the prevention of repairs. Companies are increasingly turning products that are traditionally durable goods, into one time use products. An early example here is the disposable camera where the customer brings in the entire camera for the film to be developed and has to buy a new one when they want to take more pictures. Or the printer where ink is more expensive than a new printer or products where you can't open them to replace the battery. But with most of these they are designed to be impossible to service without destroying the whole. The diagram on the left is all the different types of screws they use in technology. You would have to have an extensive tool kit to be able to open objects with all these different screws. Some of these simply do not have a tool that fits them.



All this makes it easier to replace rather than repair, particularly for cheap items. And nothing is cheaper and more prone to replacement than clothing.



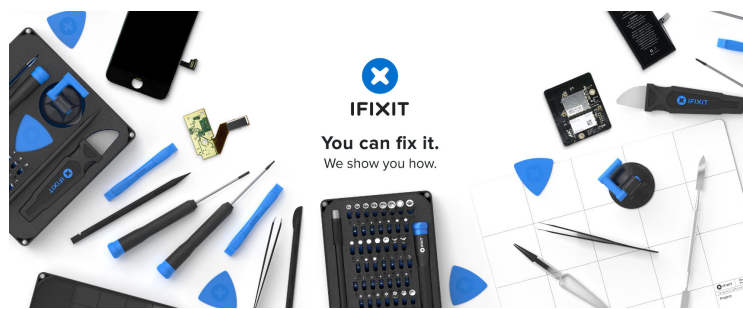
There is a movement afoot to challenge these systems and there are things we can do at home as well.

Right to Repair

LEGISLATION



loading ...



REPAIR MANIFESTO

WE HOLD THESE TRUTHS TO BE SELF-EVIDENT

IF YOU CAN'T FIX IT, YOU DON'T OWN IT.

REPAIR IS BETTER THAN RECYCLING
Making our things last longer is both more efficient and more cost-effective than mining them for raw materials.

REPAIR SAVES YOU MONEY
Fixing things is often free, and usually cheaper than replacing them. Doing the repair yourself saves you money.

REPAIR TEACHES ENGINEERING
The best way to find out how something works is to take it apart.

REPAIR SAVES THE PLANET
Earth has limited resources. Eventually we will run out. The best way to be efficient is to reuse what we already have.

REPAIR CONNECTS PEOPLE AND THINGS | **REPAIR IS WAR ON ENTROPY** | **REPAIR IS SUSTAINABLE**

WE HAVE THE RIGHT TO REPAIR DOCUMENTATION FOR EVERYTHING

TO DEVICES THAT CAN BE OPENED | **TO CHOOSE TO REMOVE 'DO NOT REMOVE' STICKERS** | **TO NON-PROPRIETARY FASTENERS**

TO REPAIR THINGS IN THE PRIVACY OF OUR OWN HOMES | **TO ERROR CODES & WIRING DIAGRAMS** | **TO AVAILABLE, REASONABLY-PRICED SERVICE PARTS**

TO REPAIR DOCUMENTATION FOR EVERYTHING | **TO REMOVE 'DO NOT REMOVE' STICKERS** | **TO TROUBLESHOOTING INSTRUCTIONS & FLOWCHARTS**

TO REPAIR THINGS IN THE PRIVACY OF OUR OWN HOMES | **TO ERROR CODES & WIRING DIAGRAMS** | **TO AVAILABLE, REASONABLY-PRICED SERVICE PARTS**

REPAIR IS INDEPENDENCE | **REQUIRES CREATIVITY** | **MAKES CONSUMERS INTO CONTRIBUTORS** | **INSPIRES PRIDE IN OWNERSHIP**

IFIXIT JOIN THE REVOLUTION WITH IFIXIT.COM

Ifixit – Kyle Wiens – from Bend –was in college and late one night tried to fix his Apple iBook G3 with little success and a ton of frustration because he couldn't find a repair manual – 15 years later, what was a mission to crowd source repair instructions for electronics and make them publicly available for free has turned in to an organization that offers hundreds of tutorials, repair manuals, tear-downs instructions for free, an advocacy arm for the Right to Repair Legislation and a business side that sells tools and parts to help with repair. It is a huge resource to DIYers, repair businesses and community repair events worldwide.

Materials Management

2017 DEQ Reuse/Repair Workforce Development Micro-Grant Awards Description of Grants Funded in 2017

Technical Apparel Repair Scaling
Grantee: Renewal Workshop
Amount: \$9,760

The Renewal Workshop in Cascade Locks will train two sewing technicians and purchase new equipment to expand their unique model of repairing small defects in returned clothing that would have otherwise been discarded. This process brings these items back into the economy for use.

Job Development in Electronics Refurbishing and Materials Reuse
Grantee: Garten Services
Amount: \$10,000

Garten Services in Salem will recruit and train two new employees to sort electronics for reuse. This will range from harvesting, testing and packaging small parts for resale, to testing computers, printers and monitors, to assessing the cost/benefit ratio of refurbishment of unique items. These new employees will be adults with intellectual and/or cognitive disabilities.

Train a Cobbler
Grantee: JD's Shoe Repair
Amount: \$10,000

JD's Shoe Repair in Portland will train one cobbler, for employment in the business or to start their own small business. This new worker will be trained in repair of shoes, bags, sports equipment, and other items. This company has steady demand and is looking to grow, and grant funding will assist to cover in-house training costs.

Tool Lending Library Operations Manager Position
Grantee: The Toolbox Project
Amount: \$10,000

The Toolbox Project in Eugene will hire an operations manager and purchase equipment to facilitate member growth, further outreach, and increase the financial stability of the organization. This will allow more people to use this community library of tools, avoiding unnecessary new purchases.



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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

The State of Oregon's DEQ offers grants in our state to help organizations that want to promote reuse and repairing.



[Oregonians] are practical and savvy. That's why more and more of us are choosing quality clothes that save money, last longer and reduce waste. Well-made clothes are available for every budget, are built to last, and can be worn often and for years to come. It's about making choices that make sense—which is just part of who we are.

MAKE EVERY THREAD COUNT.

They also created an outreach campaign about clothes. The statistics I shared earlier on clothes were researched and published through this program. But every thread counts also aims to empower consumers to make better decisions.

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LEARN HOW TO HELP

Quality doesn't have to be code for "expensive." Well-made clothes aren't determined by the price tag and simple care can make those pieces last, which saves you the hassle and cost of replacing them. You can extend the life of your clothes and your investment by taking a few easy steps.

STEP 1: LOOK FOR SIGNS OF QUALITY

EDGES AND HEMS: Cut or "raw" edges and hems can lead to unraveling and loose, hanging threads. Be careful in choosing garments with these features as they may require special laundering.

GOOD QUALITY THREAD AND STRONG, EVEN STITCHES: Give the fabric a gentle pull to see if the thread breaks or pops. Check for rippled, puckered or twisted hems and seams. Avoid garments that don't appear to hang smoothly.

FABRICS: All types of fabrics, whether natural or synthetic, have advantages and disadvantages. Consider the quality of the fabric itself (thickness, softness, stretch, etc.) and how suitable the fabric is for that particular item. Will it be comfortable and durable?



LININGS: For suits and other lined garments, check to see if the lining hangs loosely and doesn't cause any pulling or puckering.

MATCHED PATTERNS: If the garment has stripes or plaid, the pattern should match up at the seams.

QUALITY BUTTONS AND BUTTONHOLES: Buttonholes should be well stitched with no loose threads or raw fabric showing. Test the button in the buttonhole to make sure it's easy to button up the garment.

MORE >

We can look for signs of quality. Are the edgest and hems solid, is the lining well attached, are the seams made with strong thread and even stiches? Is the fabric thick, will it be comfortable and durable?

STEP 2: CARE FOR YOUR CLOTHES

CLEAN CORRECTLY: Follow labels when washing your clothes to keep them looking better and lasting longer.



STAIN REMOVAL: Discover what sort of care is best for the stain. Cold water, hot water or stain treatment? Some quick online research can save that garment you love.

CALL IN THE EXPERTS: Locate a good dry cleaner and tailor that can help keep your clothes clean and well-fitted.



USE THE DRYER SPARINGLY: High heat fades and shrinks material, and also breaks down elastic fibers in clothes, causing breakage and stretching. When possible, line or flat dry your clothes. If you must dry your clothes, use the lowest setting.

SIMPLE FIXES: Learn the simple but satisfying art of re-attaching a button, mending a tear or applying a patch.



GROUP SIMILAR ITEMS AND TURN INSIDE OUT: When washing, turn jeans and graphic shirts inside out to prevent fading and wear. Wash similar items together (for example, all jeans) to prevent harsher fabrics from wearing on softer ones.



CONSIDER COLD WATER: For most laundry, you can use cold water and less detergent than directed. This prevents exposure to excess heat or chemicals that contribute to fading or wearing out.

STEP 3: WEAR THOSE CLOTHES OFTEN AND FOR YEARS TO COME!

Every item in your closet has a coat-per-wear: the longer you wear that shirt or pair of jeans, the more you get out of your investment. A closet carefully stocked with several quality items will outlast a closet packed with poorly made, disposable clothes. So choose quality—you'll look good, save money and help care for our environment. And if you must retire an item of clothing, give it a second life by donating it to an organization that accepts previously worn clothing or sell it through a consignment shop.



<https://www.oregon.gov/deq/mm/wpcampaigns/Pages/Make-Every-Thread-Count.aspx>

DEQ also researched the most environmentally friendly and effective way to make your clothes last longer. They suggest that we follow label instructions, cold water tends to be the gentlest, and separating clothes not just by color, but type of material can help. If you have stains you can look for gentle stain removers or make your own. You can make simple fixes like sewing on a button or mending a tear, but you can also call on the experts there are tailors everywhere in our region. Most drycleaners can mend or even alter clothes.

Business solutions



The repair movement is actually good for our economy. Small cottage businesses can fix shoes, computers, appliances and much more.

Some companies also stand by their products by fixing them. For example, the Swedish denim company [Nudie](#) Jeans offers free denim repair at twenty of their shops.

[Patagonia](#), partnered with iFixit to teach consumers how to repair their clothing; they offers a repair program (small fee) where they 40,000 items each year at the largest single repair facility in NA (Reno). Mobile repair services in Europe. Campaign - Buy once, buy well and mend.

Locally the following organizations received grant funding I spoke about earlier - for workforce development and training

- Renewal Workshop in Cascade Locks – repair high-end clothing that had been returned (North Face);
- JD's Shoe Repair, to train a cobbler;
- Garten Services, to train people for disassembly and reuse of electronic

components

- Free Geek to train 7 repair techs on smartphone and tablet repair; earn certification and potentially start their own repair business.
- the Toolbox Project – tool library in Eugene

Community solutions



Open it up. See how it works. Hopefully fix it.

There are many ways the community is rallying around the repair movement.

Repair Café was started 10 years ago in Amsterdam when Martine Postma attended a discussion on design and repair at a place called Platform 21 – space intended for community discussion on design topics. In 2011 she started the Repair Café Foundation to help others run Repair Cafes around the world. This is the model that community repair events have taken inspiration from.

The Fixers Collective was born in 2008 out of conversation from an art project intended to create a collaborative process to break the gap between specialist and nonspecialists through a series of workshops – one of which was themed 'mend'. Repair was declining due to increasingly affordable electronics, aggressive copyright policies, proprietary designs, and business models built on encouraging frequent upgrades.

Restart – Restart parties – found in London 2013 by Janet Gunter – Ugo Vallauri – out of frustration with the throwaway, consumerist model of electronics that we've been sold, and the growing mountain of e-waste that it's leaving behind. Fixing parties, but also research, education and advocacy; data collection repairs

Fixit Clinic – an MIT student –2009 at UC Berkley- Peter Mui “moose”– that wanted to demystify consumer tech and empower people to disassemble and repair their stuff.....improve science and tech literacy in the population...so we can choose officials to make good policy decisions.....Broken item report; use the coach model;



We have two groups that organize free repair fairs in our region. Repair Fairs are in Washington and Clackamas Counties and Repair PDX is in Portland and Gresham. Portland Repair Finder is a website where you can find and also post businesses that repair stuff.



What can be fixed? Broken stuff – get the word out; limited to stuff you can carry in; non-hazardous (weapons, gasoline engines or things that would create noxious fumes, fire, excessive noise); the intention is for repairs to not be such that we are competing with legit repair businesses; quick fixes or fixes that cannot take place in regular marketplace; No bike tune-ups, tailoring services, etc.



These are really fun events.



Thank you

Questions?