

Package-Free Shopper

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CS 410



Image source:

<https://www.pexels.com/photo/person-holding-orange-fruits-in-white-net-3737624/>





Image source: <https://pxhere.com/en/photo/348762>

The Problem

Plastic packaging
uses fossil fuel
greenhouse gas emissions
microplastics pollution



Image source: <https://www.flickr.com/photos/jeepersmedia/15213386005>



The Problem

Paper packaging
paperboards are often lined with
plastic
can be recycled max. seven times⁴



The Problem

Aluminum packaging
utilizes several nonrenewable
resources
smelting process creates toxic
sludge containing radioactive
elements or heavy metals ²



Image source:
<https://www.pexels.com/photo/cans-of-beer-in-a-carton-box-55328>



The Problem

Glass packaging

in the USA, only one-third of
disposed glass is recycled¹
glass does not decay



Image source: <https://www.flickr.com/photos/ruthanddave/6799085383>



Recycling is not the solution – Reduction is

9% of plastic waste is recycled ³

alternative packaging materials
can be recycled only a limited
number of times ⁵



Image source:

<https://freespiritmedia.org/features-search/2022/1/27/a-guide-to-navigating-a-life-with-reduced-plastic-waste>



Image source:

<https://www.pexels.com/photo/fashion-man-person-wor>
178/2021/



Image source: Own photo

Image source: Own photo

Obstacles

Shoppers

- no knowledge about locations where one could buy products packaging-free
- no knowledge about products that could be purchased packaging-free



Image source:

<https://www.rawpixel.com/image/3307216/free-photo-image-warehouse-food-distribution>



The Solution

Package-Free Shopper

a mobile phone application

- scan product's barcode / type product category
- list shops near your location that offer the product packaging-free
- list the unit price of the product
- create shopping list



Stakeholders

non-governmental environmental organizations

individual investors

initial funding

ideas

networking



Customers

supermarkets with bulk section
zero waste stores
farmers' markets



Image source: <https://www.flickr.com/photos/joeyz51/50091686588>



Customers

free account

website

- manage list of products
- update prices



Image source: <https://www.flickr.com/photos/joeyz51/50091686588>



End-users

Shoppers who would like to

- reduce their packaging waste
- reduce transportation emissions
- consume with consciousness



Image source:

[https://www.pexels.com/photo/crop-woman-putting-vegetables-into-wicker-b...](https://www.pexels.com/photo/crop-woman-putting-vegetables-into-wicker-b)

End-users

free trial period

subscription-based pricing model



Image source:

<https://www.pexels.com/photo/crop-woman-putting-vegetables-into-wicker-b>

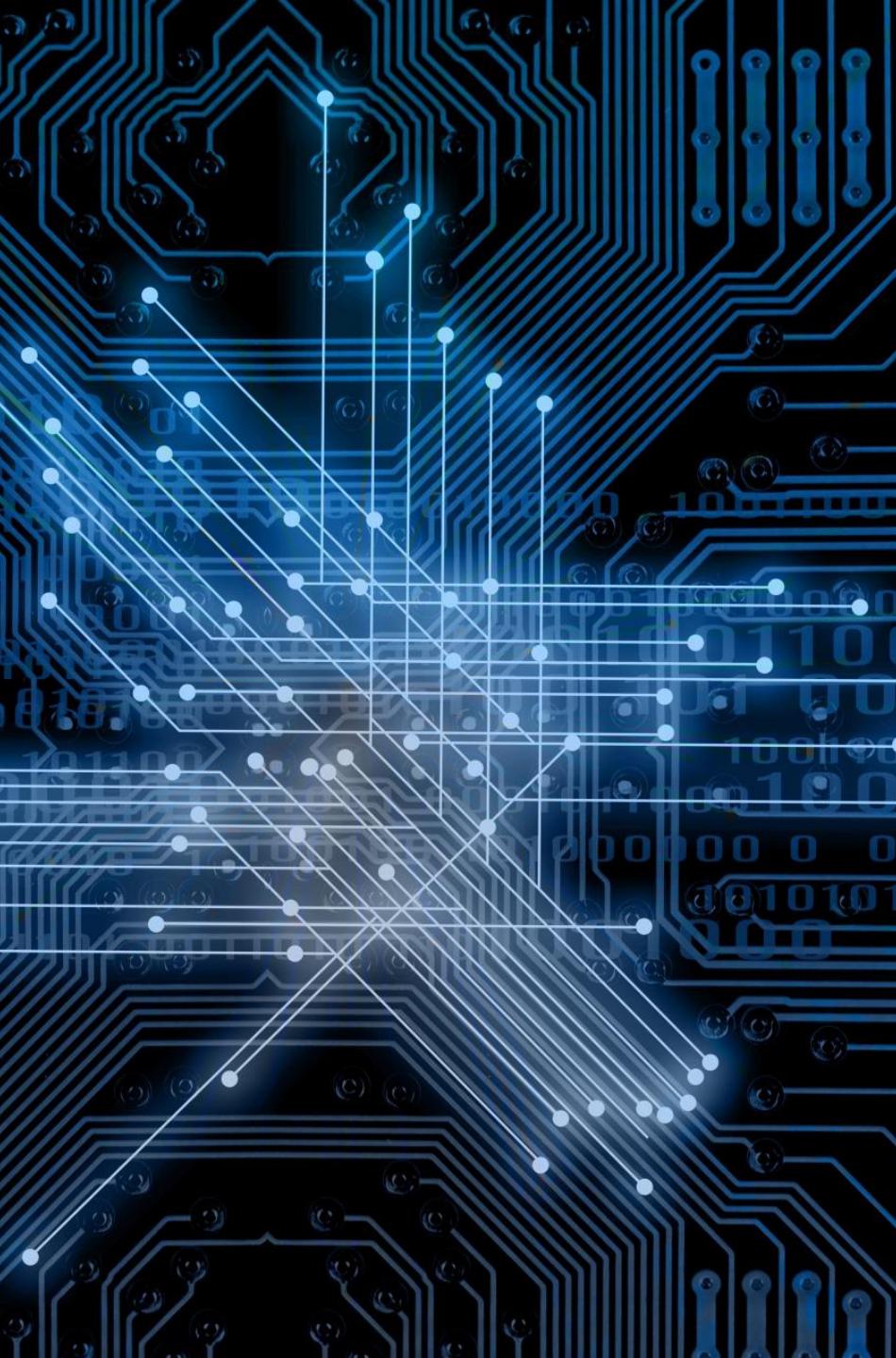




Technology

- barcode scanning algorithm
 - real-time location data
 - database
 - product recommendation algorithm

Image source:
<https://www.publicdomainpictures.net/en/view-image.php?image=125005&picture=technology-2020>



Competition

Features	Package-Free Shopper	Zero Waste App 	Go Zero Waste 
Scan barcode / Search by product	✓	✗	✓
Shops near your location	✓	✓	✓
List products	✓	✓	✓
List unit prices	✓	✗	✗
Shopping list	✓	✗	✗



Benefits

- Less trash
- Transition into low-waste living
- Slow shopping
- Local businesses
- Communities



Image source: https://commons.wikimedia.org/wiki/File:Farmers%27_Market.jpg

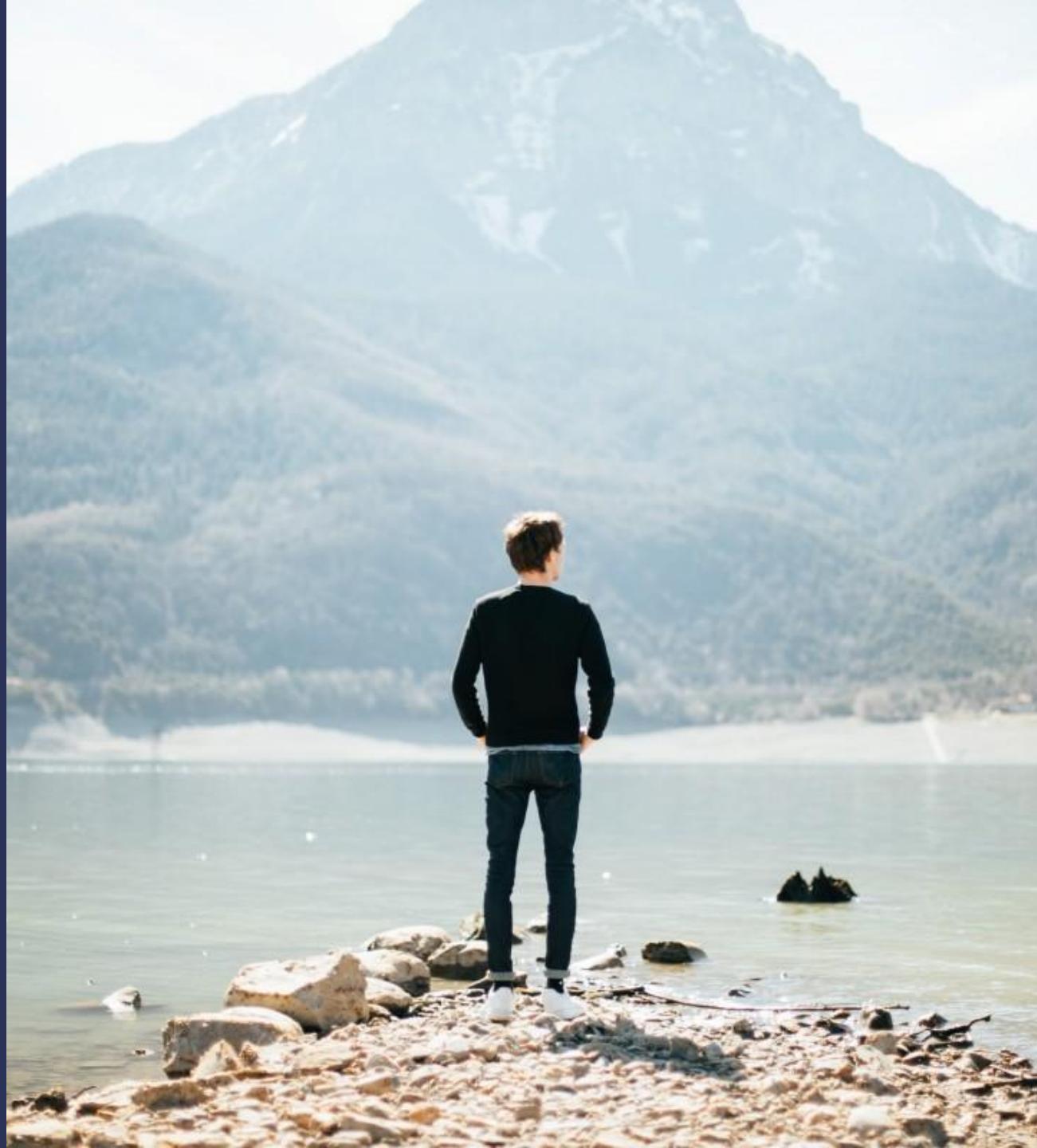


Challenges

- raise awareness
- change shopping habits
- niche market



Image source: <https://pxhere.com/en/photo/1387583>





Thank you



Image source:

https://commons.wikimedia.org/wiki/File:USDA_is_working_hard_to_expand_access_to_farmers%20markets_for_those_participating_in_the_Supplemental_Nutrition_Assistance_Program_%28SNAP%29.jpg

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