

# *Are we able to extract useful and quality data from online sources to paint a picture of reuse of textiles in Norway?*

*A first-look at the field of online second hand shopping*



Nordic Statistical Meeting 22-24 august 2022  
Reykjavik in Iceland

# *Agenda*

Background for the paper

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Web scraping

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Contacting online reuse platforms

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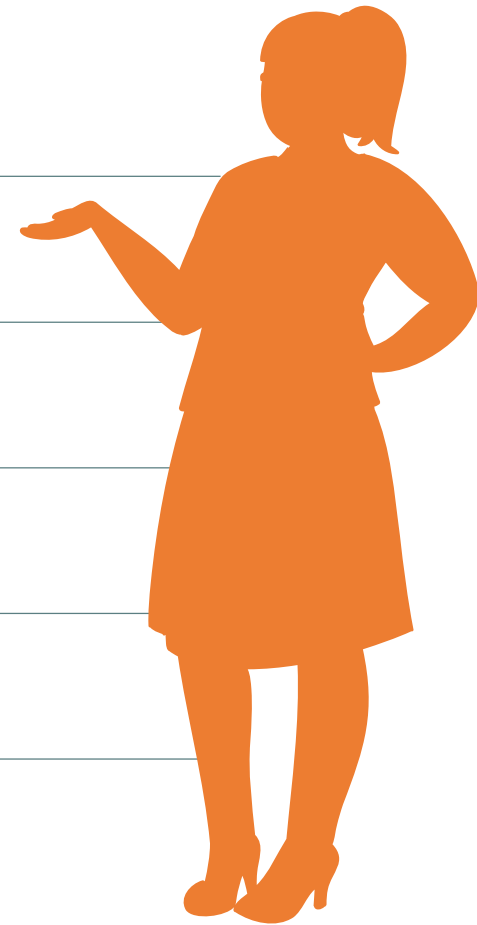
Results

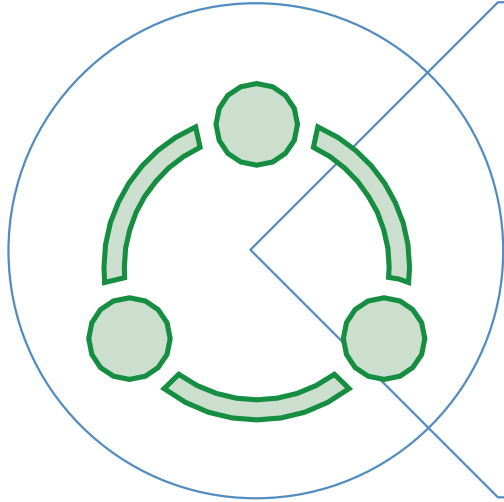
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Limitations

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Recommendations





## Circular economy

- We have statistics on waste
- Need statistics on reuse as well



## A large share of reuse happens online

- Therefore the data exists online – is it available for us to use?

# Web scraping

- The quickest and easiest way to gather online data?
- Uses Python programming
- **Limitations:**
  - Websites generally want to be scraped by Google - not you!
  - Web scraping is sensitive to changes in the webpages
  - Lack of good metadata description
  - A static window of the situation





# Advantages of web scraping



Figure: Geographical locations based on a web scraping a website in April 2021.

- Provides an early-process overview of data (and its potential as a data source)
- Can provide detailed data, including geographical information



# Major online reuse platforms in Norway



- Has been around the longest
- Sells everything



- Modern and fashionable






- Salvation Army
- Widespread physical stores and a website

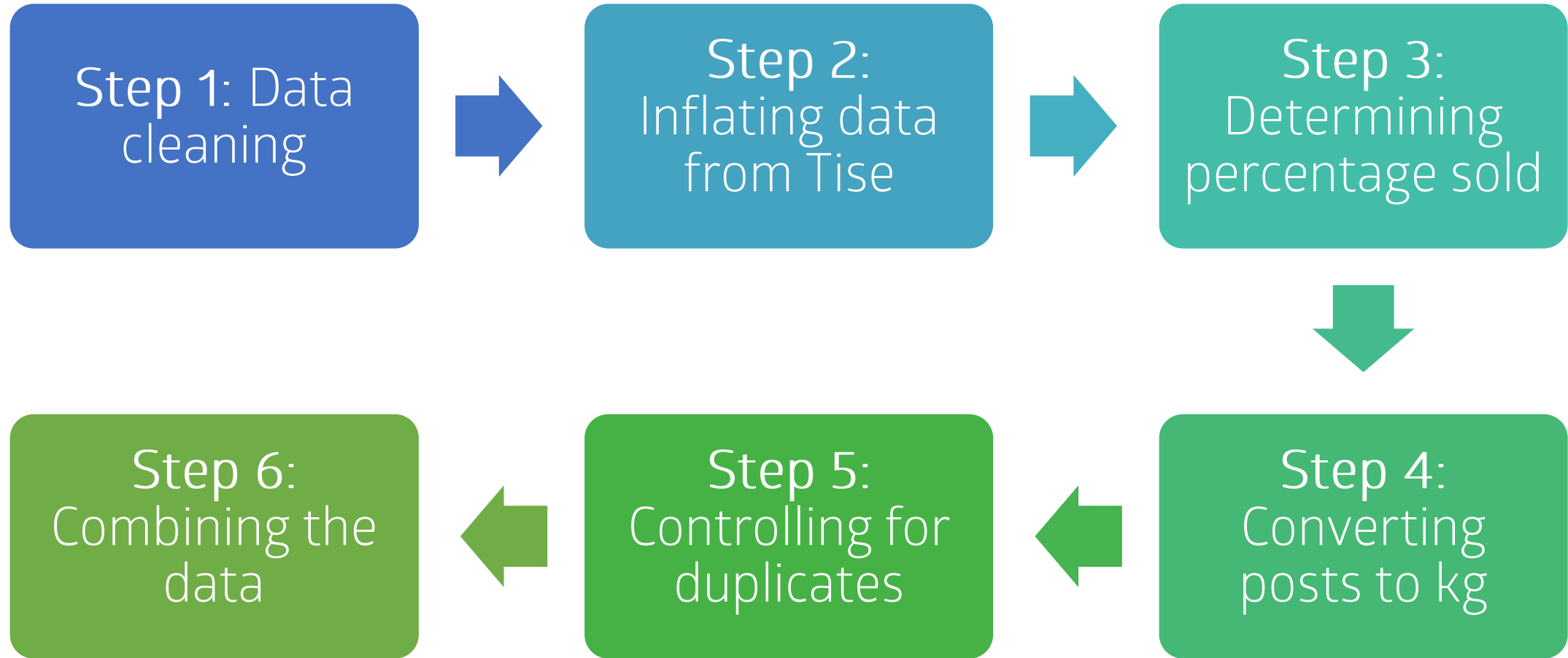


- Not able to contact

# Gathering data by contacting online platforms

Online platform			
Post or item?	Advertisement posts	Sold advertisement posts	Sold items
Time frame	Yearly	3 months	Monthly
Subcategories	49 subcategories	114 subcategories	0 subcategories
Price	Asking price	Asking price	Average price
Detail level	Aggregated on category	Not aggregated	Aggregated for the whole country

# *Steps to make one dataset*





# Percentage reused textiles sold online of the total textile consumption

• Total consumption of textiles in Norway is 80 000 tonnes per year

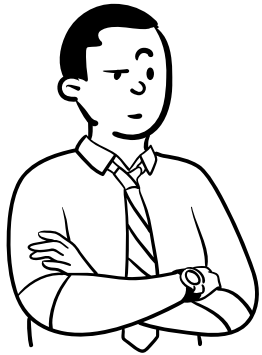
Percentage sold Finn.no	Percentage overlap Finn.no vs Tise.com	Amount sold on Facebook etc.			
		100 tonnes	500 tonnes	1 000 tonnes	1 500 tonnes
40	0	1,4 %	1,9 %	2,5 %	3,2 %
	15	1,3 %	1,8 %	2,4 %	3,0 %
	30	1,2 %	1,7 %	2,3 %	2,9 %
	45	1,1 %	1,6 %	2,2 %	2,8 %
	60	1,0 %	1,5 %	2,1 %	2,7 %
50	0	1,5 %	2,0 %	2,7 %	3,3 %
	15	1,4 %	1,9 %	2,6 %	3,2 %
	30	1,3 %	1,8 %	2,4 %	3,1 %
	45	1,2 %	1,7 %	2,3 %	3,0 %
	60	1,1 %	1,6 %	2,2 %	2,8 %
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	15	1,6 %	2,1 %	2,7 %	3,3 %
	30	1,4 %	1,9 %	2,6 %	3,2 %
	45	1,3 %	1,8 %	2,5 %	3,1 %
	60	1,2 %	1,7 %	2,3 %	3,0 %
70	0	1,8 %	2,3 %	2,9 %	3,6 %
	15	1,7 %	2,2 %	2,8 %	3,4 %
	30	1,6 %	2,1 %	2,7 %	3,3 %
	45	1,5 %	2,0 %	2,6 %	3,2 %
	60	1,4 %	1,9 %	2,5 %	3,1 %

# *Results of the sensitivity analyses*



Sensitivity analysis	Range
Percentage reused textiles sold online of the total textile consumption	1 – 3,6 percent
Tonnes of reused textiles sold online	770 – 2845 tonnes
Number of advertisements of reused textiles sold online	2,5 – 5,6 million advertisements
Size of online second-hand market on textiles	1 100 – 2 800 million NOK

# Limitations



Online reuse only



No data from Facebook



Potential for better duplication control



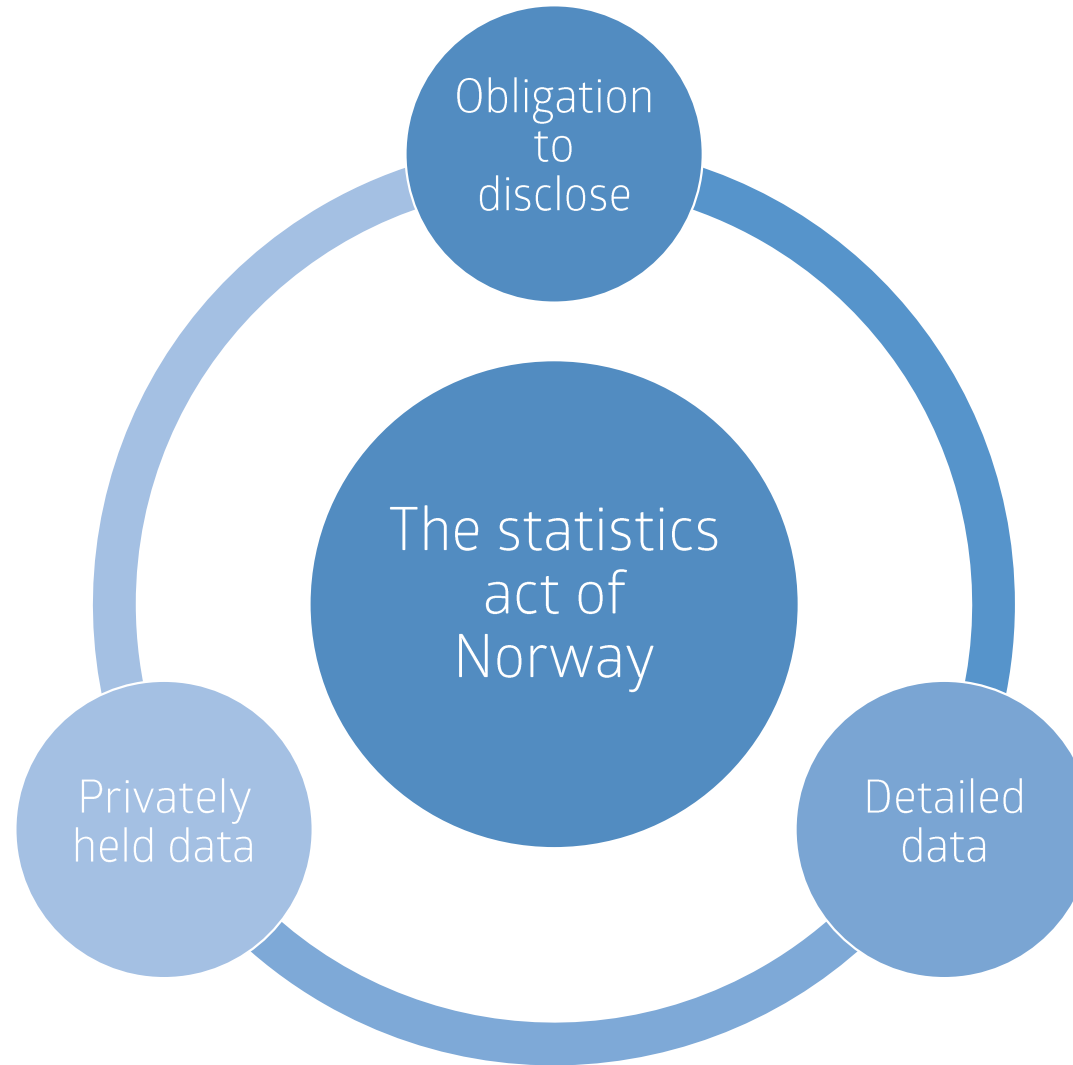
Uncertain number of sold posts on Finn.no



Could be false advertisements

# *We tested so that you don't have to*

A decent overview, but  
need more detailed data



# *The path forward*

- Circular economy will be part of the new national statistics program
- Official statistics on reuse in the future?





# *Thank you!*

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