# STORY HUNT

*Workshop #3: Scraping & Cleaning*

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# Today´s Program:

Introduction to Scraping

Web Scraping

*Demo: Chrome Scraper Plugin*

Introduction to Data Cleaning

Basic Data Cleaning Techniques:

*Demo: Open Refine*

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# The Data Pipeline: Theory

## Finding & Getting

* Where to find Data?
* Data portals
* Freedom of Information Requests
* Webs-scraping

## Cleaning

* transform documents into a structured data

## Analyzing

* How do I spot:
* Patterns & Trends ?
* Outlier ?
* Connections between Columns, Datasets
* relation between Data & Context

## Visualizing

* How to visualize the essence of a finding:
* appealing
* informative

## Communicating

* What´s the right:
* Format?
* Medium?
* Target group?

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# The Data Pipeline: Tools

## Finding & Getting

* Google Sheets
* Webscraper
* Unbubble
* Tabula

## Cleaning

* Open Refine
* Trifacta
* Google Sheets / Excel
* Python, R

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# What is Scraping?

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# What is Scraping:

unstructured Documents

Structured tabular data

3 Steps:

Fetch the document (most likely from the Internet) → Follow futher linked documents (especially in web scraping) → Extract interesting parts and store them in a structured format

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## When is Web-Scraping useful?

- *avoid tedious big copy-pasting jobs*

## What is the challenge?

- *one scraper only works for documents from the same source (e.g. Website, PDF Documents frame the same collection)*

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# Chrome Scraping Plugin

*A web scraper with user interface*

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# Chrome Scraping Plugin

*Download-Link: http://bit.ly/RmLaUv*

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# Basics: Data Cleaning

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# Basics: Clean Data

*Structured, machine-readable Data*

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# What makes Data Clean?

Consistent spelling of corresponding values (U.S. ≠ USA)

WatchOut: No trailing Spaces in front/ behind a value

Unique column labels

No hidden rows / columns

No empty rows / columns

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# Open Refine

*Free Open Source Tool for working with messy Data*

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# Open Refine

http://openrefine.org/download.html

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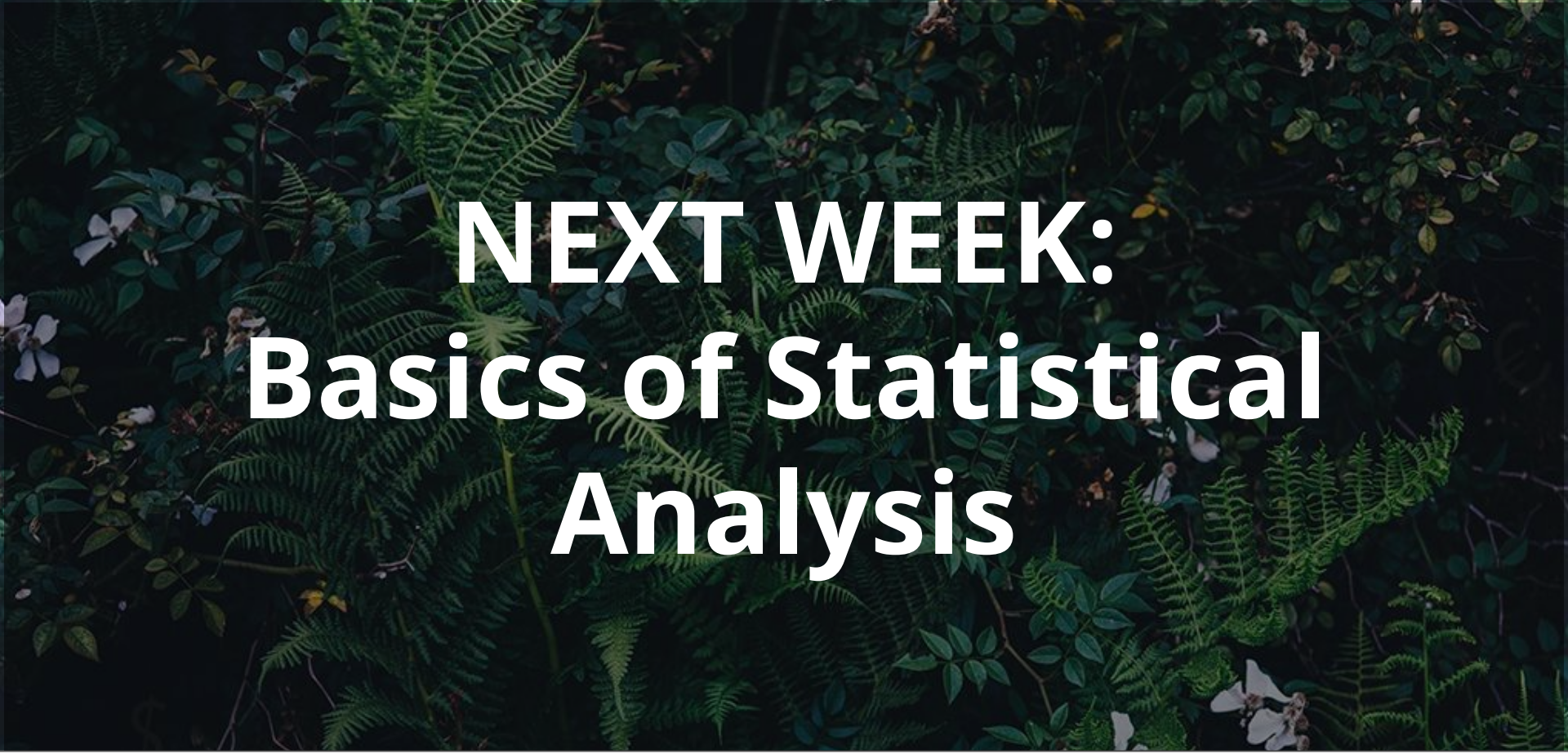


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