# Scraping the internet with R

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#### About me

- \* Gilian Ponte, 24 years, Groningen.
- \* MSc Marketing Intelligence & Management.
- \* ex-Web Analyst at Nextail.
- \* R, Python and JavaScript.



## Scraping the internet with R. Why?

- \* Scraping is a time-saving skill.
- \* Replace expensive scrape tooling.
- \* Compare prices with competitors.
- \* Analyse a competitors' pricing strategy over a longer time period.
- \* Content collection.

#### Before we get to scraping...

- \* RStudio
- \* <u>R</u>
- \* Selector Gadget



Who already scraped in R before?

### Let's start scraping!

- \* Scrape some prices from Bol.com, Amazon.de and AH.nl.
  - Scrape one price.
  - Build an automatic scraper and compare.
  - How to deal with JavaScript.
- \* BUT, this technique is applicable to ALL content.
- \* You should be able to scrape (almost) everything.
- \* <u>Download R scripts</u>



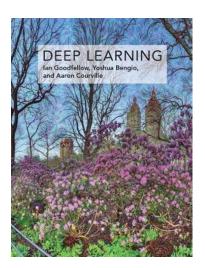
Scrape one price from Bol.com.

Let's focus our attention on **Bol.com** and RStudio...

Build an automatic scraper.

#### Build an automatic scraper

- \* Scraping one price or element is cool. But..
  - Compare prices?
  - Long trends?
  - Store multiple prices?



\* Start of the academic year. So we are going to compare the prices of books.

### Build an automatic scraper

Let's focus our attention on Github and RStudio ...

How to deal with JavaScript? (I'm sorry Mac users)

#### How to deal with JavaScript?

- \* Some websites use JavaScript to load elements. For example: lazy loading by scrolling. For example: <u>AH.nl</u>.
- \* How to deal with this in R?
  - Phantom.js
  - To simulate a browser and wait until the page is finished loading.

# How to deal with JavaScript?

Let's focus our attention on RStudio ...

### Want to know more? Or just connect?

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Full code and slides available at: https://github.com/GilianPonte/R-workshop