

Week 12 | Hard-to-get data

What do you do when data doesn't come with a download button?

- Scrape it! (from websites)
 - Crack it! (pdfs)

Web scraping

A script that allows you to automatically collect useful data from a webpage.

Scraping with Google Spreadsheets

Two functions will help you extract the data you want from a webpage.

`=IMPORTHTML()`

`=IMPORTXML()`

```
=IMPORTHTML(URL, "table/list", 1)
```

Can look for either a table or a list tag.

Number dictates which table or list you're talking about
(useful when there's more than one!).

```
=IMPORTXML(URL, "//div")
```

This is a more powerful tool. Goes beyond tables and lists!

Pass in the URL and a **XPath** query to run on the webpage.

XPath

A query language for selecting nodes from an XML (or HTML) document.

XPath nodes = elements or attributes.

Tabula

For getting tables out of PDFs.

<http://tabula.technology/>

BREAK!

Today's exercises:

<http://bit.ly/week-12-exercises>