

# *Motivating*

## data journalism students

This presentation is at: <http://tiny.cc/arhus>



# Why are students **de-motivated?**

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graph TD; A[Why are students de-motivated?] --- B[The nature of the subject]; A --- C[How it is taught];
```

**The nature  
of the subject**

**How it is taught**

Dr. Nic Petty  
(statistics and math teacher)

# The nature of the subject

- Requires learning some **statistics** (most hated subject in college!)
- Needs developing technical skills (from basic to advanced)
- Encourages self-reliance, trial and error (no simple answers)
- May prompt calls for urgent support (close to deadlines)

*We can make data extraction from some sources easier*

# Creating software to help make data journalism easier

Those are the three github repos mainly for data extraction:

- <https://github.com/wsaqaf/mecodify> (Twitter)
- <https://github.com/wsaqaf/fbscraper> (Facebook)
- <https://github.com/wsaqaf/ddjblocks> (Bitcoin blockchain)

# How it is taught

- Style of teaching doesn't suit students
- Not enough relevant/interesting examples
- Goes too fast
- Not enough hands-on workshops and 1-on-1 supervision
- Does not adapt fast enough to new tools/technologies

*Fortunately, there's a lot we can do here! :)*

# Start by having students ask themselves 'Why do I want to be a data journalist?'

- It's evidence-based
- It's easier to do (data is everywhere)
- It unveils important facts to the public
- It has multiple uses in many sectors
- It expands ways of thinking
- It's cool & mostly fun
- and much more...

Show examples of local and international data journalists and how they made a difference with their stories and advanced their careers.

# What do motivated students have in common?





# Step (1)

**Offer to use examples  
that are interesting  
and relevant to the student**

# Discover the history of a vlogger the student follows

## TheOneLilium ASMR YouTube Channel statistics



Channel name	<a href="#">TheOneLilium ASMR</a>
Subscribers	215 880
Videos	439
Total views	62 484 619

Tools to use:  
[YouTube data API](#)  
[Socialbakers.com](#)

**Demystify chances of winning the lottery the student often participates in but never wins :/**

The image shows a promotional banner for 'Millionpakken' from Det Danske Klasselotteri. The banner features a red carpet with stanchions and a large pile of lottery tickets. The text 'Millionpakken' is written in large, bold, yellow letters with a sparkling effect. Below it, the text 'Årlige vinderchancer på 86%' is displayed in white. At the bottom, there is a green button with the text 'KØB DIN LODPAKKE NU'. The top left corner contains the logo for 'DET DANSKE KLASSELLOTTERI' and the top right corner has a crown icon and an '18+' age restriction symbol. A red navigation bar with white text is located below the logo, containing the following links: 'SPIL MED NU', 'SPØRG OS', 'HAR DU VUNDET?', 'VINDERHISTORIER', 'KONKURRENCER', and 'MIN SIDE'.

**DET DANSKE KLASSELLOTTERI**

SPIL MED NU SPØRG OS HAR DU VUNDET? VINDERHISTORIER KONKURRENCER MIN SIDE

**Millionpakken**

Årlige vinderchancer på 86%

**KØB DIN LODPAKKE NU**

# Follow a hot & new social media #campaign the student supports



LIVING

## #WhyIDidntReport blows up on Twitter after Trump's remark to Kavanaugh accuser

By Christian Gollayan

September 21, 2018 | 3:56pm | Updated



Tools to use:

[Twitter Search API](#)

[Mecodify](#)

# Reveal how the Brazilian national football team performed over the years and what may have gone wrong recently



Useful resource:  
<http://openfootball.github.io/>

# Discover origins of bitcoins worth millions of US dollars that were donated to Wikileaks, which the student is fascinated by



- Tools to use:
- [blockchain.info](https://blockchain.info)
  - [DJBlocks](https://www.djblocks.com)



WikiLeaks founder Julian Assange claims his organization has made a 50,000 percent return on [bitcoin](#) after investing in the cryptocurrency in 2010 — and it's all thanks to the U.S. government.

# Uncover dynamics on Facebook in relation to the recent Swedish elections, which a student is interested in



Valet 2018

Tool to use:  
[FBScraper](#)

## Step (2)

Brainstorm with the student on how to search for and ultimately find the right data source(s) in relation to the chosen story/topic



## Data sources can be:

- Public databases?
- Websites?
- Social media?
- Gather the data themselves?
- ... and much more

## Step (3)

Help students go through suggested sources, give them time and allow them to make mistakes along the way until the right data sources are identified

# Example:

How did the Swedish political parties leverage social media before and after the recent election?

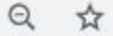
Sources: Twitter, Facebook

## Step (4)

Allow students to explore the best mechanisms for extracting data from the source. But you can always give suggestions when stuck

# For example, **Mecodify** can be used for Twitter

https://github.com/wsaqaf/mecodify



## Welcome to Mecodify



Mecodify is an open-source tool created as part of the Media Conflict and Democratization Project (<http://mecodem.eu>) to help gather, analyse and visualise Twitter data for use by social science scholars. The name describes what it does, i.e., Message Codification by converting messages to systematic structures, tables, graphs and quantifiable content.

The platform remains in constant development and the first version (1.0) is currently being used for the research purposes indicated in the website above.

The software mainly uses PHP and Javascript and has used several open-source libraries including but not limited to HighCharts, TwitterAPIExchange, D3Js for various components of the platform.

# For example, **FBScraper** can be used for Facebook

<https://github.com/wsaqaf/fbscraper>



## FBScraper

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A simple script that allows extracting, viewing and converting posts on Facebook pages and groups to CSV for further analysis. Requires no API access.

### Description

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It is currently very difficult to extract data from Facebook pages and groups since API access is limited and prevents access to key information such as authors' names, reactions, etc. The data does exist there on the various pages but it is quite time consuming to extract the data manually. So this script does the job for you. All you need to do is login your account, save the data you see on the screen using Inspect (details below) and let the script do the rest.

[Optional] In addition to the script, there is another Apple Script script that can automate the process of extracting the raw html data from facebook pages and groups. Note that this would only work on a Mac OS computer.

## Step (5)

Let students **work in groups** to install and run the tool(s), with support if necessary. Have them extract the data for the case agreed upon

# For example, Excel and SPSS could be used for data analysis

	A	D	E	H	I	K	L	M	N	O
1	date_time	user_screen_name	user_name	user_followi	user_followi	user_tweets	user_verified	clear_text	retweets	favorites
2	26/08/18 08:13	sdriks	Sverigedem	70013	49	4261	1	Den 9 september År det	247	780
3	26/08/18 11:38	socialdemokrat	Socialdemok	80440	26	23836	1	PresstrÅff kl 13:55 med	3	7
4	26/08/18 12:20	socialdemokrat	Socialdemok	80440	26	23836	1	Socialdemokraterna gÅyr	40	79
5	26/08/18 13:11	nya_moderaterna	Nya Moderat	101530	4064	16309	1	I dag 16.00 medverkar @i	1	6
6	26/08/18 14:03	nya_moderaterna	Nya Moderat	101530	4064	16309	1	Jag skulle vilja se ett land	17	49
7	26/08/18 15:06	socialdemokrat	Socialdemok	80440	26	23836	1	Det År inte svÅrare År	56	163
8	26/08/18 15:33	socialdemokrat	Socialdemok	80440	26	23836	1	Socialdemokraterna gÅyr	27	83
9	26/08/18 17:24	nya_moderaterna	Nya Moderat	101530	4064	16309	1	I kvÅ till kl. 20.00 i @TV4 F	1	18
10	26/08/18 17:28	miljopartiet	MiljÅrpartie	84194	4912	14572	0	ALLA NYA BILAR SKA KUN	35	137
11	26/08/18 18:39	socialdemokrat	Socialdemok	80440	26	23836	1	Fatta ditt beslut. Axla ditt	74	258
12	27/08/18 07:32	nya_moderaterna	Nya Moderat	101530	4064	16309	1	Av samtliga partiledare ha	28	146
13	27/08/18 08:40	socialdemokrat	Socialdemok	80440	26	23836	1	Magdalena Andersson oc	11	41
14	27/08/18 09:00	sdriks	Sverigedem	70013	49	4261	1	Allt fler kvinnor vÅrjer SC	147	528
15	27/08/18 09:30	sdriks	Sverigedem	70013	49	4261	1	I dag lanserar vi Åytervan	248	805
16	27/08/18 09:32	nya_moderaterna	Nya Moderat	101530	4064	16309	1	UtÅrndska stÅrldligor sk	30	147
17	27/08/18 09:48	miljopartiet	MiljÅrpartie	84194	4912	14572	0	2 miljarder till bÅttre ko	13	48
18	27/08/18 12:04	socialdemokrat	Socialdemok	80440	26	23836	1	Nu bÅrjar presstrÅffen	1	6
19	27/08/18 12:09	socialdemokrat	Socialdemok	80440	26	23836	1	Annika StrandhÅll: Vi ha	6	25
20	27/08/18 12:11	socialdemokrat	Socialdemok	80440	26	23836	1	Annika StrandhÅll: Persc	3	17
21	27/08/18 12:26	socialdemokrat	Socialdemok	80440	26	23836	1	Idag presenterar vi ytterli	26	67
22	27/08/18 12:26	socialdemokrat	Socialdemok	80440	26	23836	1	Tre miljarder kronor fÅr	9	38
23	27/08/18 12:29	socialdemokrat	Socialdemok	80440	26	23836	1	Generalplanen fÅr vÅr	3	13
24	27/08/18 12:31	socialdemokrat	Socialdemok	80440	26	23836	1	Generalplanen fÅr vÅr	4	17
25	27/08/18 12:36	socialdemokrat	Socialdemok	80440	26	23836	1	Vi Socialdemokrater komi	75	247
26	27/08/18 14:10	miljopartiet	MiljÅrpartie	84194	4912	14572	0	Kollektivtrafiken mÅste l	13	34





**For advanced data analysis, Python and R are useful**



## Step (6)

Together go through the exercises on excel/SPSS/Python/R and other tools to do the analysis. Use pedagogic tools like **Jupyter** for the walk through on how to analyze the data

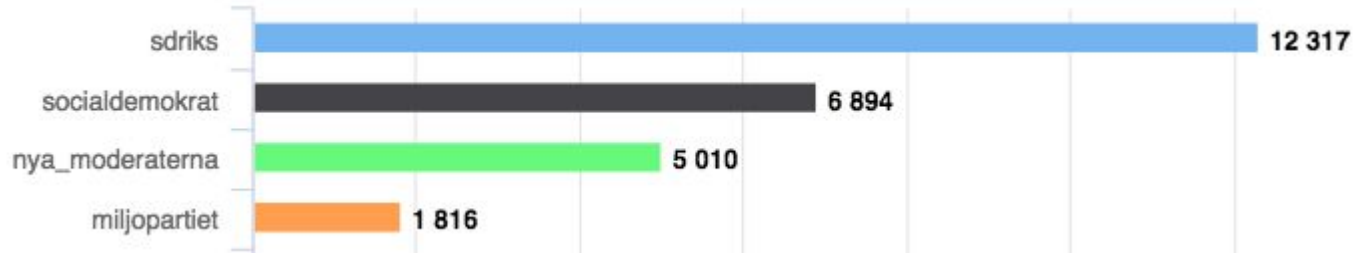


**Project Jupyter exists to develop open-source software, open-standards, and services for interactive computing across dozens of programming languages.**

## Step (7)

Let students show their result and express pride of ownership of their work. They should be proud of what they have achieved and presented

## Example: Results of an analysis of Swedish parties Twitter use



**#tv4val #teamulf #dinröst #pldebatt #val2018 #duellen**  
**#sd2018 #debatten #klimatval2018 #svpol #srdebatt #slutdebatt**  
**#utfrågningen #familjevecka #minkroppmittval #imlöfvenit #barapolitik #slutdebatten #nu**  
**#aktuellt #valet2018 #skola #jämställdhet #svt #rättsidaavhistorien #klimatledarskap #familjeveckan**  
**#orangutang2018 #pldbebatt #tv4duell #climatemarch #sludebatt #stoppavinstjakten #stoppasosseriet**  
**#sthlmfashionweek #jobb #duell #tv4 #minkroppmittval #pension #klimat #familjecka**

# Conclusion

- Motivation requires having students want to learn DJ
- Examples of relevance are extremely important
- Working in groups allows students to support each other
- Hands-on is instrumental, mistakes are encouraged
- New tools need to be experimented with, using **e-learning**
- Students to be encouraged & feel proud of their work
- It's a long journey, but with resources & determination, it can start!