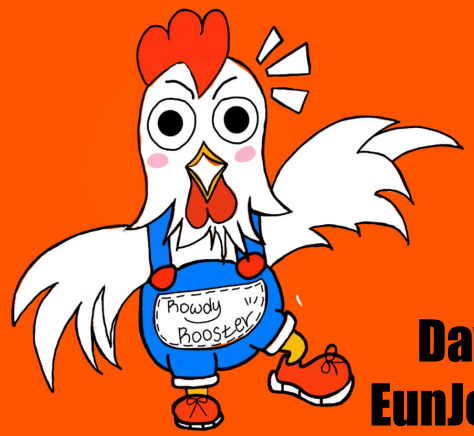
FACT FUL NESS

HOW WELL DO YOU KNOW THE WORLD?
AND WHY THINGS ARE BETTER THAN YOU THINK



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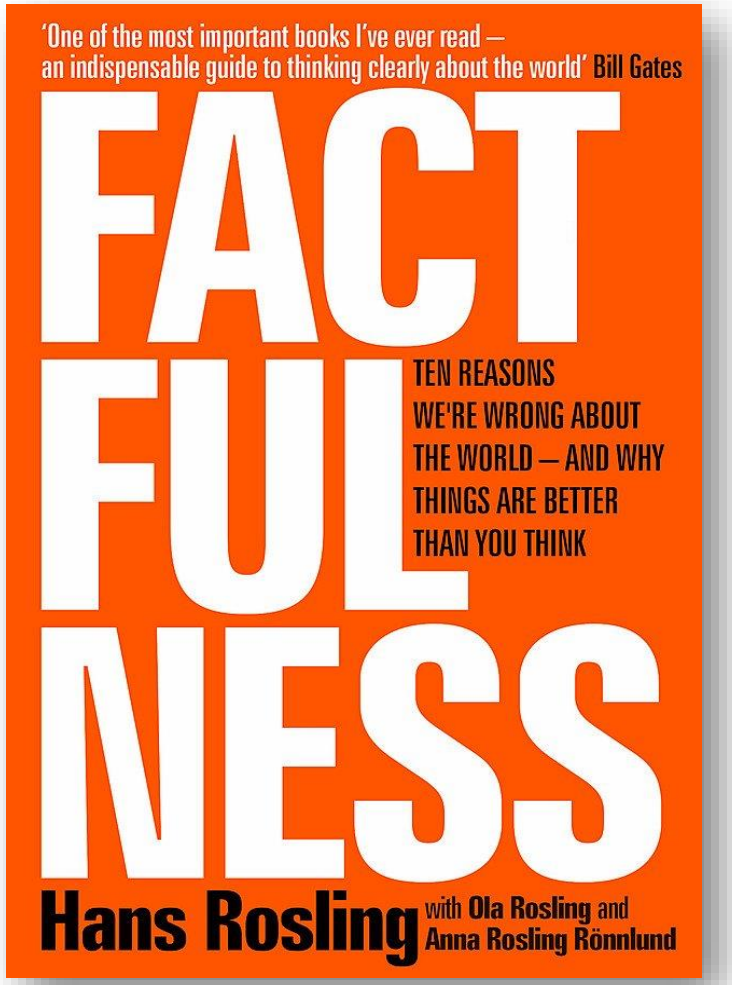
Motivation



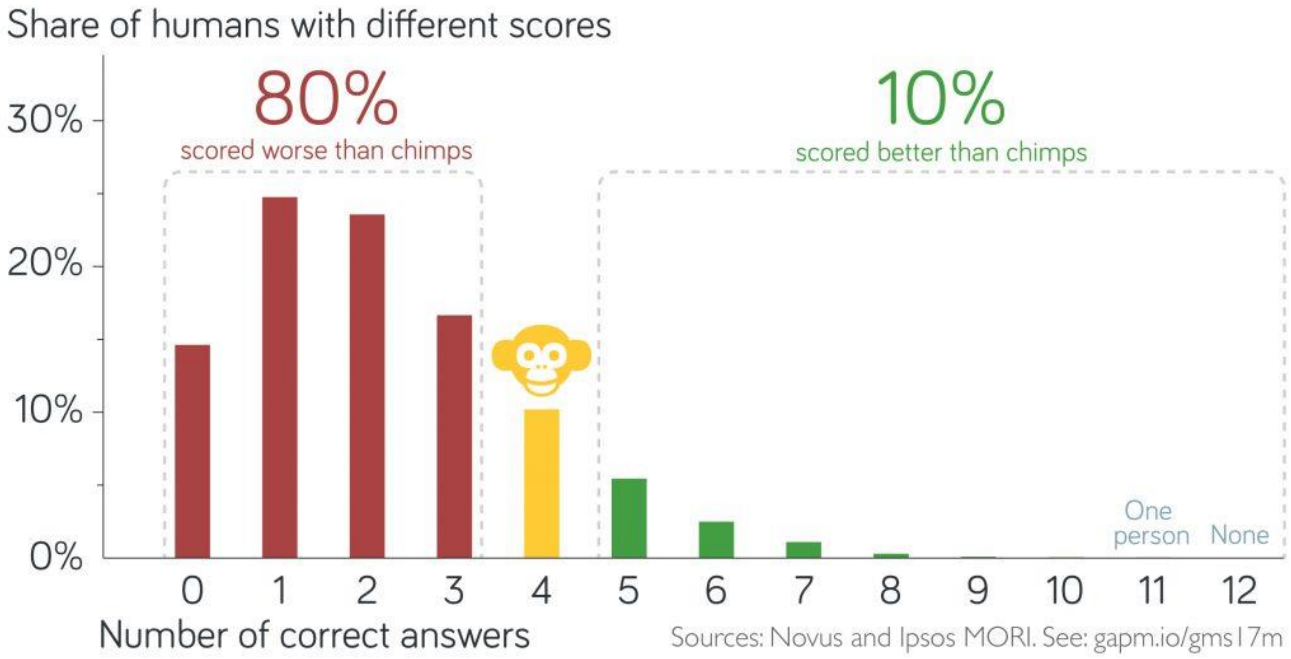
“

When asked simple questions about global trends,
we systematically get the answers wrong.
So wrong that a chimpanzee choosing answers
at random will consistently outguess journalists,
Novel laureates, and investment bankers.

”

-Factfulness-

Motivation



On average a chimpanzee picking answers randomly would score **4 out of 12** correct answers. But the average score for the humans was much lower: only **2.2**!

Quiz

Top 3 wrong answer rate	Correct	Wrong
Q1. In all low-income countries across the world today, how many girls finish primary school? → **60 %!**	10%	90 %
Q3. In the last 20 years, the proportion of the world population living in extreme poverty has . . . → **Almost halved**	5%	95 %
Q5. There are 2 billion children in the world today, aged 0 to 15 years old. How many children will there be in the year 2100, according to the United Nations → **2 billion !**	10%	90 %

Question to Answer

The wrong answers tend to lean in one (negative)direction.

All the groups asked considered the world **a scarier, more violent and more hopeless place** than it really is.

“how those decision-makers who work in the government sector, NGO or leader can make decisions wisely?”

Question to Answer

Why things are better than you think and

Why knowing the fact based on the data is important?

Question to Answer

Dataset related to the quiz

US Foreign Aid data

Is there any correlation or discrepancy between the statistics and US Foreign Aid?

03. Dataset Summary

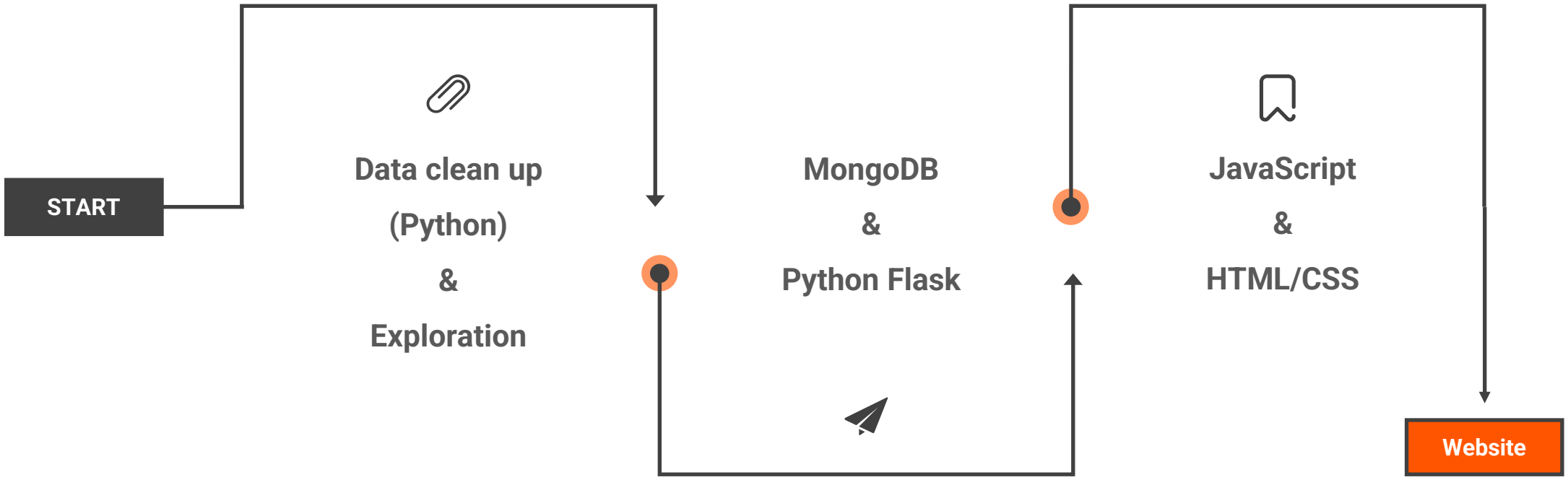
Analysis Dataset

- primary_completion_rate_low_income.csv
- extreme_poverty_percent_people.csv
- population_aged_0_14_years_rate.csv
- immunized_percent_of_one_year_olds.csv

Insight Dataset

- us_foreign_aid.json/csv

04. Key Coding Approach



04. Key Coding Approach

Dataset Manipulation

```python
import json
import pandas as pd

df = pd.read_csv("us_foreign_aid.csv")

def translate(df):
    result = {}
    for i, row in df.iterrows():
        if row["US Category Name"] not in result:
            result[row["US Category Name"]] = {}
            result[row["US Category Name"]].update({
                row["Fiscal Year"]:row["current_amount"]
            })
        else:
            result[row["US Category Name"]].update({
            row["Fiscal Year"]:row["current_amount"]
            })

    return result

print(translate(df))

with open("us_foreign_aid.json", "w") as f:
    json.dump(translate(df), f)
```

	US Category ID	US Category Name	US Sector ID	US Sector Name	Country Code	Country Name	Transaction Type ID	Transaction Type Name	Fiscal Year	current_amount	constant_amount
0	1	Peace and Security	1	Counter-Terrorism	AFG	Afghanistan	2	Obligations	2005	23438722	30242298
1	1	Peace and Security	1	Counter-Terrorism	AFG	Afghanistan	2	Obligations	2006	13304784	16634308


```
{"Democracy, Human Rights, and Governance": {"2001": 1819754930, "2002": 1188103258, "2003"
 "Economic Development": {"2001": 1943428218, "2002": 3397378579, "2003": 3099851697, "2004
 "Education and Social Services": {"2001": 1258360924, "2002": 1300460812, "2003": 17757900
```


Built with

- Python – Pandas

04. Key Coding Approach

Build a Database

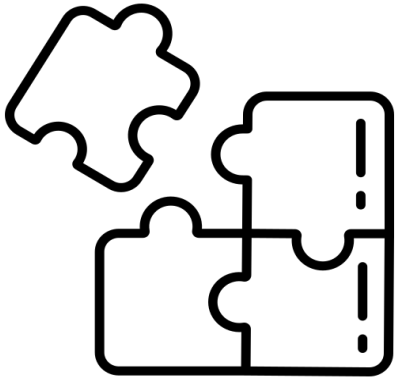
```python
from flask import Flask, render_template
from flask.json import jsonify
from datetime import datetime
from flask_cors import CORS

# Import our pymongo library, which lets us connect our Flask app to our Mongo database.
import pymongo
import json
import pandas as pd

# Create an instance of our Flask app.
app = Flask(__name__)
CORS(app)

# Create connection variable
conn = 'mongodb://localhost:27017'

# Pass connection to the pymongo instance.
client = pymongo.MongoClient(conn)

@app.route('/api')
def get_data():
    db = client.poverty_db
    try:
        q = db.poverty.find({})
        docs = [doc for doc in q]
        print(len(docs))
        return jsonify(docs)
    except Exception as e:
        return jsonify({"message":e})
```

Import our pymongo library, which lets us connect our Flask app to our Mongo database

Built with

- Python – flask, jsonify
- MongoDB

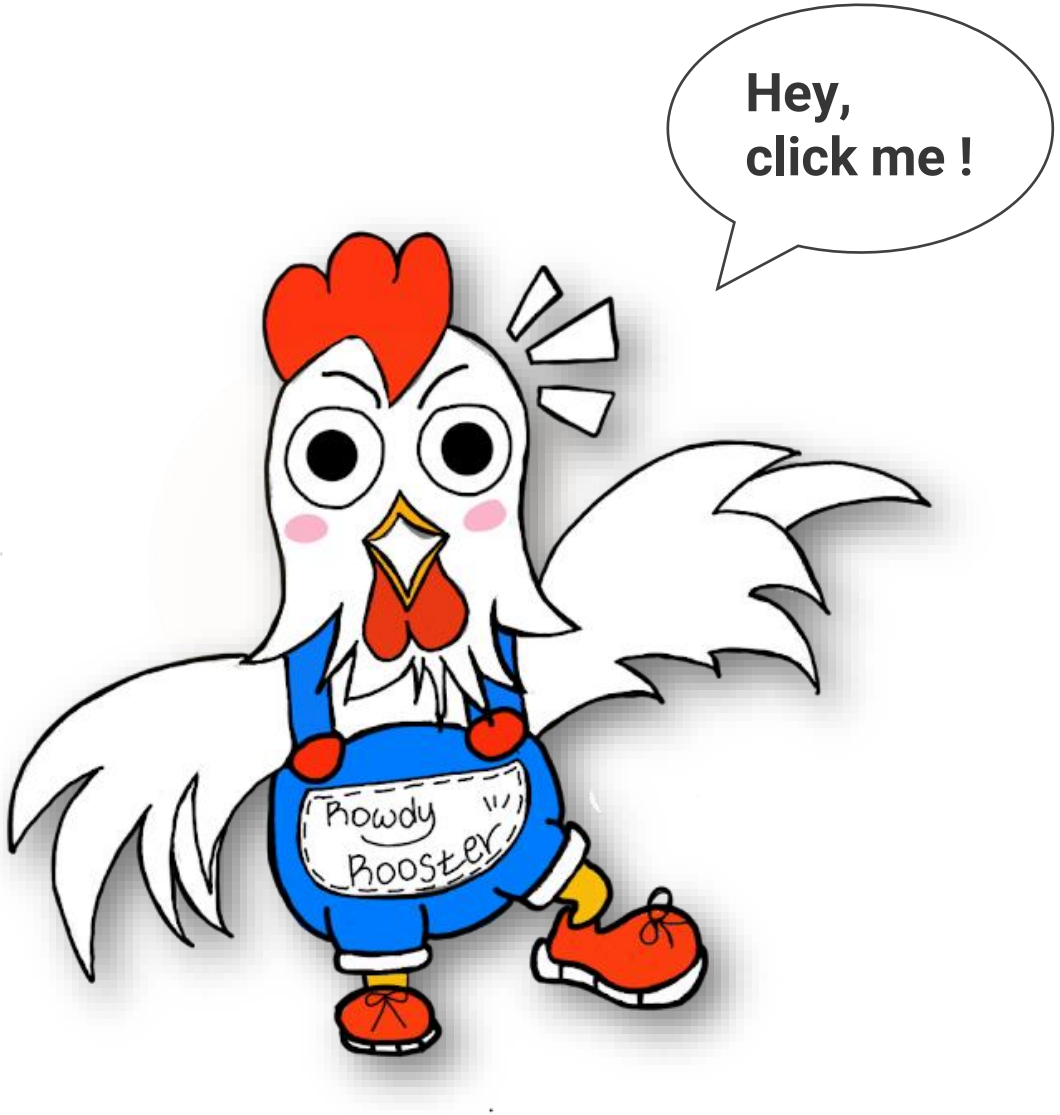
04. Key Coding Approach



Additionally Built with…

- Plotly/D3 JavaScript
- HighCharts – Interactive JavaScript charts library
- Surveyjs.io - customizable surveys, forms and quizzes that seamlessly integrate into your application

05. Data Analysis



06. Conclusion

Step 1

Recognize

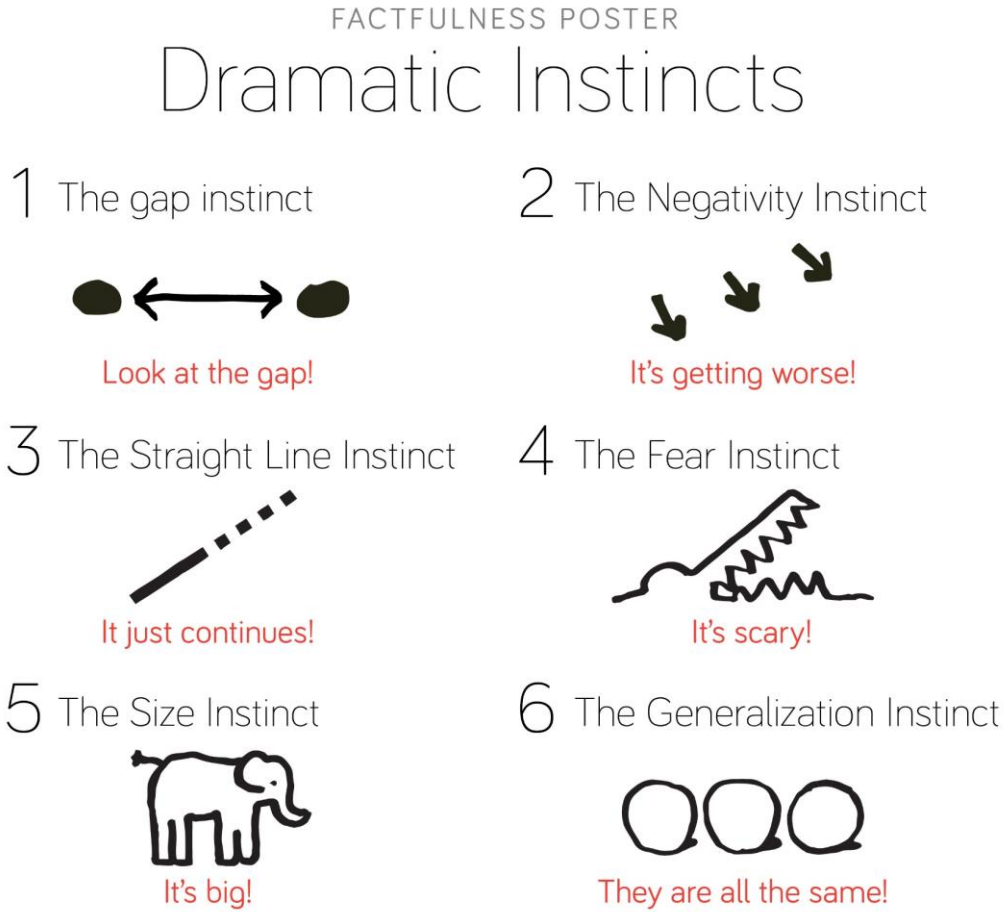
Recognize that the world isn’t as bad as I thought

06. Conclusion

Step 2

Problem Solving

Do your analysis



06. Conclusion

Step 3

Take an Action

See the world in multiple angles!

06. Conclusion

Recognize

Recognize that the world isn’t as bad as I thought

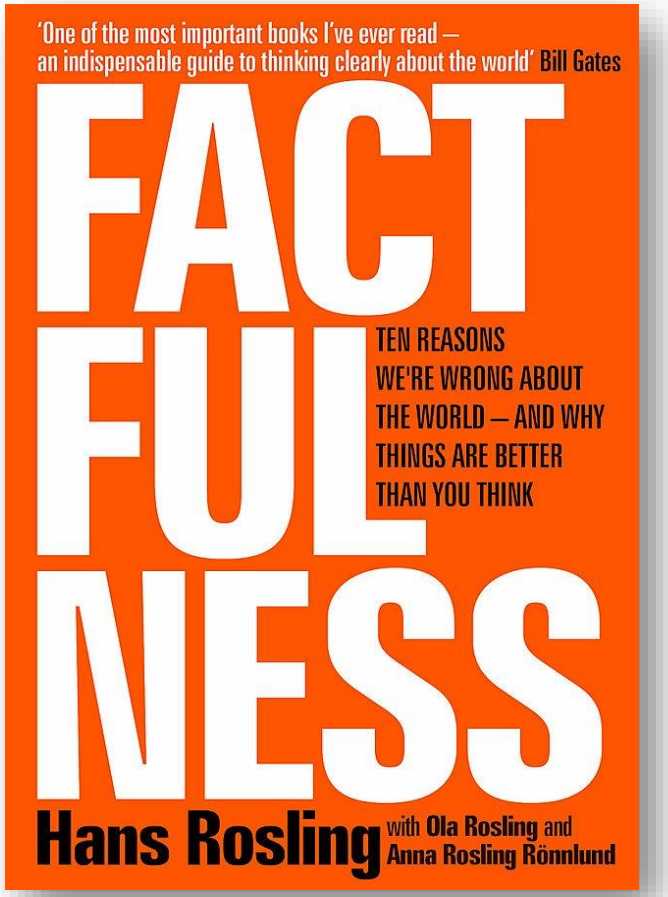
Problem Solving

Do your analysis

Take an Action

See the world in multiple angles

Conclusion



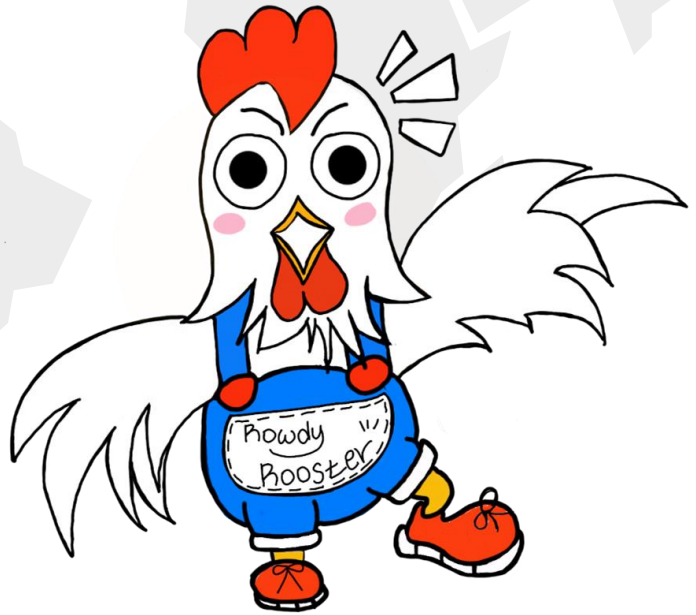
All 13 questions are here

“Do you like to know more about the world you live in?

Read this book!”

Thank you!

Q&A?



Reference

- Rosling, H., Rosling, O., & Rönnlund, A. R. (2019). Factfulness: ten reasons we're wrong about the world - and why things are better than you think
- Gapminder : https://www.gapminder.org/
- World Bank : https://data.worldbank.org/
- UNESCO Database : http://data.uis.unesco.org/