GA Data Science

Lightning Presentation
Final Project Pt. 1

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Mapping the Growth of Science

Problem

What impact will a new academic paper have?

Will this paper spur new research growth?

Data

Source
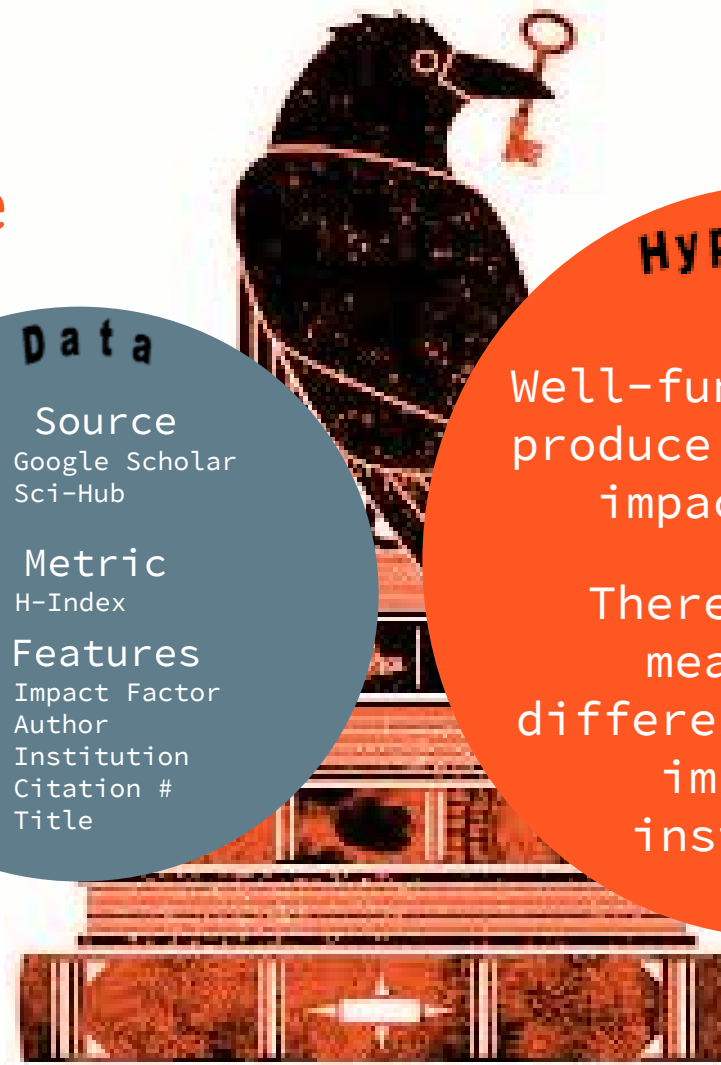- Google Scholar
- Sci-Hub

Metric
- H-Index

Features
- Impact Factor
- Author
- Institution
- Citation #
- Title

Hypothesis

Well-funded authors produce the highest impact papers

There exists a meaningful difference in paper impact by institution

Conquering Tic-Tac-Toe

Problem

Can a simple linear model predict the best tic-tac-toe plays to win the game?

Data

Source
- Solved-Game
- Play hard-coded program

Metric
- Board State Evaluation Mapping

Features
- Current Board State Mapping

Solution

The model will converge towards a high win or tie ratio

Melody Creation

Problem

Generate a sequence of notes after some user input

Predict Song Mood

Data

Source
- Note Sequences VS Raw Audio
- Magenta by Google (NSynth Dataset)

Metric & Features
- Similar Key
- Tone Color (Range/Register)
- Tempo?

Model
- RNN or LSTM?

Solution

Model generates small melodic verses in the same key and color as user input

Questions?

Contact

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Data & Analysis:

https://github.com/mundyreimer/ga_projects.git