Haters gonna hate, hate, hate: Differences in online discourse about female and male pop singers

Team Project Spring/Summer 2024

Chair of Data Science in the Economic and Social Sciences

Supervisors: Tobias Schumacher, Marlene Lutz
Differences in online discourse about female and male pop singers

- Popular music is a multi-billion dollar industry
- Current *The Eras Tour* by Taylor Swift has already grossed more than 1 billion dollars [1]
- Popularity of individual singers can also spark antagonization

[Tobias Schumacher, Marlene Lutz](#)

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Differences in online discourse about female and male pop singers

Gender Bias in Music Industry and Online Social Networks

• Women are gaining ground, but are still underrepresented in popular music [2]
  – 34% of last year’s Billboard Top 100 artists were women
  – Only 19.5% of corresponding songwriters were women
  – Only 6.5% of producers were women

• At the same time, gender bias and sexism are known problems in online platforms and social media. For instance, studies have found that
  – There are gender biases in Wikipedia [3]
  – There are differences in how male and female politicians are talked about on Reddit [4]
  – On Twitter, there are gender and ethnic inequalities influencing the amount of followers [5]

• However, hardly any research exists regarding such issues in discussions on popular music

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Research Problem

• The goal of this project is to analyze differences in the way female and male pop singers are talked about in online communities

• Several online platforms possible, such as
  – Twitter (API shut down though)
  – Reddit (pushshift dumps available)
  – Facebook (needs to be scraped via Meta AI)

• Broad range of potential analyses could be considered
  – Target variables such as sentiment, or sexism
  – Need to control for factors such as popularity, political orientation, etc
  – Potential differences over platforms or countries/languages

• You are free to discuss your ideas with us!
Research Problem – Data, Tools, Challenges

• Potentially huge amounts of data requires good organization, clear analysis pipeline

• Has to be implemented in Python

• Scraping data from the web may take time to set up and run

• Need to familiarize with web scraping tools such as Selenium, text processing tools such as sentiment analyzers, or open NLP libraries as provided by HuggingFace
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Brief Logistics

• Language: English
• Duration: 6 months
• Min/Max number of participants: 4-6
• Prerequisites: Strong Python/programming skills, knowledge in machine learning/statistical data analysis, web mining and/or text analytics
• Work process:
  o Lots of coding, data processing and analysis
  o Regular meetings with supervisors, present and discuss your progress
  o Present your research proposal, intermediate and final results in corresponding presentation meetings
  o Written reports to be submitted at the end
• Contact (for questions): tobias.schumacher@uni-mannheim.de