chung_2022_understanding_music_streaming_services_via_text_mining_of_online_customer_reviews

Year

2022

Author(s)

Jaemin Chung and Jiho Lee and Janghyeok Yoon

Title

Understanding music streaming services via text mining of online customer reviews

Venue

Electronic Commerce Research and Applications

Topic labeling

Manual

Focus

Secondary

Type of contribution

Established approach

Underlying technique

Manual labeling

Topic labeling parameters

\

Label generation

Using the topic-term matrix, which is an output of the LSA, latent factors were labeled, based on the major noun phrases of each factor. The labels and major noun phrases for the nine latent factors are summarized in Table 1.

Table 1
Latent factors for music streaming services.

Latent factor #	Label of latent factor	Major phrases	Subject of comments
LF 1	Playing environment	car mode, landscape mode, landscape view, car view, sleep mode, regular mode	Environment
LF 2	Internet Connection	offline mode, online mode, downloaded album, airplane mode, wi-fi	Environment
LF 3	Nonpremium user	free play, free skip, free version, free user, free mode, non premium user, free app	Price plan
LF 4	Android device memory	sd card, phone memory, offline use, android marshmallow, device memory, android device	Environment
LF 5	Premium membership	free version, paid version, premium version, premium user, premium service	Price plan
LF 6	Local file usage	free version, paid version, premium version, premium user, premium service	Environment
LF 7	Amazon Prime membership	prime member, prime membership, prime video, non prime member, prime user	Price plan
LF 8	Genre & contents	k pop, hip hop, j pop, j rock, k drama, classic rock, anime opening	Content
LF 9	Features by price plan	free user, premium user, background play, shuffle mode, shuffle play, audio mode	Price plan

Motivation

\

Topic modeling

LSA

Topic modeling parameters

LSA was performed based on the TF-IDF weights for the extracted noun phrases.

Nr of topics: 9

Nr. of topics

9

Label

Manually assigned single or multi word labels

Label selection

\

Label quality evaluation

\

Assessors

\

Domain

Paper: Music

Dataset: Music

Problem statement

This study analyzes social media data to investigate the determinants of customer satisfaction in music streaming services. Topic modeling and text regression were applied to online app reviews for five music streaming services.

Corpus

Origin: Google Play

Nr. of documents: 22.819

Details:

- Reviews for Amazon Music, Deezer, Spotify, Tidal, and YouTube Music
- reviews posted between January 1, 2016 and December 31, 2020

Document

Text data of app review

Pre-processing

noun phrases that met the following five conditions were removed from the extracted phrase set:

- phrases containing the name of the target services or other services (e.g., ‘spotify’, ‘youtube’, ‘pandora’, ‘apple’)
- phrases with a document frequency less than five or more than 2000
- phrases with a length of four characters or less
- phrases containing adjectives expressing feelings (e.g., ‘nice’, ‘awesome’, ‘terrible’)
- phrases without specific meaning (e.g., ‘one thing’, ‘something else’).

```
@article{chung_2022_understanding_music_streaming_services_via_text_mining_of_online_customer_reviews,
    abstract = {With the development of information technology, the subscription economy and streaming service market have grown rapidly. In particular, music streaming services have disrupted the traditional music industry. Nevertheless, few attempts have been made to understand music streaming services in terms of overall customer satisfaction. This study analyzes social media data to investigate the determinants of customer satisfaction in music streaming services. Topic modeling and text regression were applied to online app reviews for five music streaming services. This study finds that customers comment on factors related to usage environments, price plans, and content. All environment-related factors, some pricing-related factors, and content-related factors have a significant effect on customer satisfaction. In addition, the satisfaction determinants differ for each service. This study is an early attempt to analyze music streaming services from a data-driven perspective and contributes to a comprehensive understanding of music streaming services from the customer's point of view.},
    author = {Jaemin Chung and Jiho Lee and Janghyeok Yoon},
    date-added = {2023-04-21 19:34:15 +0200},
    date-modified = {2023-04-21 19:34:15 +0200},
    doi = {https://doi.org/10.1016/j.elerap.2022.101145},
    issn = {1567-4223},
    journal = {Electronic Commerce Research and Applications},
    keywords = {Music streaming service, Customer satisfaction, Social media mining, Online app review, Text mining},
```

```
    pages = {101145},
    title = {Understanding music streaming services via text mining of online
customer reviews},
    url = {https://www.sciencedirect.com/science/article/pii/S1567422322000291},
    volume = {53},
    year = {2022}}
```

#Thesis/Papers/FS