Package 'SouthParkRshiny'

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Title Data and 'Shiny' Application for the Tv Show 'SouthPark'

Version 1.1.1

Description Ratings, votes, swear words and sentiments are analysed for the show 'South-Park' through a 'Shiny' application after web scraping from 'IMDB' and the website <https://southpark.fandom.com/wiki/South_Park_Archives>.

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URL https://github.com/Amalan-ConStat/SouthParkRshiny,https://amalan-con-stat.shinyapps.io/SouthParkRshiny/

BugReports https://github.com/Amalan-ConStat/SouthParkRshiny/issues

Depends R (>= 4.1.0)

Imports box, bslib (>= 0.9.0), config (>= 0.3.2), ggplot2, ggpubr, golem (>= 0.4.1), kableExtra, knitr, shiny (>= 1.8.0), shinydashboard, patchwork, ggimage, ggraph, ggtext

Suggests gridlayout

Additional_repositories https://amalan-constat.github.io/drat/

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`Basic_Plots` *Basic Plots*

Description

Average rating and votes summarised in different ways.

Usage

```
Basic_Plots
```

Format

A list with

1. Number of Votes vs Average Rating
2. Number of episodes in seasons and their runtime
3. Average ratings and votes for each season

Examples

```
length(Basic_Plots)
```

Cooccurrence_Plots *Cooccurrence Plots*

Description

A network showing how frequently Cartman, Stan, Kyle and Kenny speak in the same episodes across the selected seasons. Nodes represent characters, displayed using their images. Connections are undirected, with widths and labels showing Jaccard similarity: the number of episodes containing both characters divided by the number containing either character. Higher values indicate greater co-occurrence. Shared episodes do not necessarily indicate direct interaction.

Usage

```
Cooccurrence_Plots
```

Format

An object of class ggraph (inherits from ggplot2::ggplot, ggplot, ggplot2::gg, S7_object, gg) of length 1.

Examples

```
length(Cooccurrence_Plots)
```

Friends_Sentiment_Plots *Friends Sentiment Plots*

Description

Three heatmaps summarising sentiment word rates for Cartman, Stan, Kyle and Kenny across seasons using the Bing, NRC and Loughran dictionaries. Columns represent seasons and rows represent characters. Green indicates a higher positive rate, red a higher negative rate, and white equal rates. Each tile displays the higher rate per 100 words spoken by that character in that season. Each dictionary has its own colour scale. Colour intensity represents the higher rate, rather than the difference between the two rates.

Usage

```
Friends_Sentiment_Plots
```

Format

An object of class patchwork (inherits from ggplot2::ggplot, ggplot, ggplot2::gg, S7_object, gg) of length 3.

Examples

```
length(Friends_Sentiment_Plots)
```

`N_Grams_Plots` *N Grams Plots*

Description

Three and four word phrases common among seasons, main characters and supporting characters are summarised through a plot here, from the script data.

Usage

```
N_Grams_Plots
```

Format

A list with

1. Three word pharases over seasons
2. Four word pharases over seasons
3. Three word pharases over main characters
4. Four word pharases over main characters
5. Three word pharases over supporting characters
6. Four word pharases over supporting characters

Examples

```
length(N_Grams_Plots)
```

`Ratings_Votes_Plots` *Ratings Votes Plots*

Description

Detailed plots for ratings and votes from the IMDB data.

Usage

```
Ratings_Votes_Plots
```

Format

A list with

1 Rating for all seasons and episodes

2 Votes for all seasons and episodes

Examples

```
length(Ratings_Votes_Plots)
```

`run_app` *Run the Shiny Application*

Description

Run the Shiny Application

Usage

```
run_app(...)
```

Arguments

`...`	list of golem options.

Value

used for side effects

`Sentiment_General_Plots`
Sentiment General Plots

Description

A three-panel plot summarising sentiment matches using the Bing, NRC and Loughran dictionaries. Lines show positive and negative word matches per 100 words in each season, read against the right-hand axis. Bars show the number of episodes with more positive than negative matches, or more negative than positive matches, read against the left-hand axis. Episodes with equal positive and negative counts are omitted from the bars.

Usage

```
Sentiment_General_Plots
```

Format

An object of class ggplot2::ggplot (inherits from ggplot, ggplot2::gg, S7_object, gg) of length 1.

Examples

```
length(Sentiment_General_Plots)
```

SouthPark_IMDB_Data *SouthPark IMDB Data Data from the IMDB website are extracted for the show. The data consists of season, episode, primarytitle, originaltitle, year, runtime(in minutes), averagerating and number of votes.*

Description

SouthPark IMDB Data Data from the IMDB website are extracted for the show. The data consists of season, episode, primarytitle, originaltitle, year, runtime(in minutes), averagerating and number of votes.

Usage

```
SouthPark_IMDB_Data
```

Format

A dataframe with

`Season` Season Number

`Episode` Episode Number

`PrimaryTitle` primary title of the episode

`OriginalTitle` original title of the episode

`Year` year the episode was aired

`Runtime` runtime in minutes

`AverageRating` average rating out of 10

`NumberOfVotes` number of votes recorded

Examples

```
sort(unique(SouthPark_IMDB_Data$Season)) # the seasons of the show
mean(SouthPark_IMDB_Data$AverageRating) # the average rating of the show
sum(SouthPark_IMDB_Data$NumberOfVotes) # sum of the number of votes
```

SouthPark_Script_Data *SouthPark Script Data*

Description

Data for the scripts scraped from the website are stored here. The data consists of season, episode, character and line.

Usage

```
SouthPark_Script_Data
```

Format

A dataframe with

`Season` Season Number

`Episode` Episode Number

`Character` Character Name

`Line` The lines the character spoke

Examples

```
unique(SouthPark_Script_Data$Season) # the seasons of the show
unique(SouthPark_Script_Data$Character) |> length() # the unique characters in the show
```

Southpark_Summary *SouthPark Summary*

Description

Overall summary plot from the script data.

Usage

```
Southpark_Summary
```

Format

A dataframe with

`Trivia` trivial information labels

`Values` data for the trivial information

Support_Sentiment_Plots *Support Sentiment Plots*

Description

Three heatmaps summarising sentiment word rates for Liane, Randy, Sharon, Gerald, Sheila and Mr. Garrison across seasons using the Bing, NRC and Loughran dictionaries. Columns represent seasons and rows represent characters. Green indicates a higher positive rate, red a higher negative rate, and white equal rates. Each tile displays the higher rate per 100 words spoken by that character in that season. Grey indicates no tokenized dialogue. Each dictionary has its own colour scale. Colour intensity represents the higher rate, rather than the difference between the two rates.

Usage

```
Support_Sentiment_Plots
```

Format

An object of class `patchwork` (inherits from `ggplot2::ggplot`, `ggplot`, `ggplot2::gg`, `S7_object`, `gg`) of length 3.

Examples

```
length(Support_Sentiment_Plots)
```

Swear_Words_Plots *Swear Words Plots*

Description

Swear word plots for main and supporting characters per seasons. Total number of words and unique words are summarised through plots.

Usage

```
Swear_Words_Plots
```

Format

A list with

1 Swear word rate per 100 words in general

2 Swear word rate per 100 words for main characters

3 Swear word rate per 100 words for supporting characters

Examples

```
length(Swear_Words_Plots)
```

`Transition_Plots` *Transition Plots*

Description

A network showing speaking transitions between Cartman, Stan, Kyle and Kenny across the selected seasons. Nodes represent characters, displayed using their images. An arrow from A to B indicates that B speaks immediately after A within the same episode. Arrow widths and labels show the percentage of transitions from A to B, using all transitions from A to a different speaker as the denominator. Only connections between the four selected characters are displayed. Speaking order does not necessarily indicate whom a character addresses.

Usage

```
Transition_Plots
```

Format

An object of class `ggraph` (inherits from `ggplot2::ggplot`, `ggplot`, `ggplot2::gg`, `S7_object`, `gg`) of length 1.

Examples

```
length(Transition_Plots)
```

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