Project 1:
Data
visualization
What makes a
good review?

Robert Castellano

I. Overview of

II. Helpfulness

of Reviews

IV. Frequenc

V. Conclusions

# Project 1: Data visualization What makes a good review?

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#### I. Overview of the Data

#### Data

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Over 500,000 Amazon "fine food" reviews.

#### Data

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Over 500,000 Amazon "fine food" reviews.

Number of people who found the review helpful Number of people who indicated whether or not the review was helpful

(129) 134 people found the following review helpful

Summary

What a great TV. When the decision came down to either ...

By Cimmerian on November 20, 2014

What a great TV. When the decision came down to either sending my kids to college or buying this set, the choice was easy. Now my kids can watch this set when they come home from their McJobs and be happy like me.

1 Comment Was this review helpful to you?



Rating

-Product ID

Review

-Reviewer User ID

## Initial questions

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Amazon reviews are often the most publicly visible reviews of consumer products.

## Initial questions

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- Amazon reviews are often the most publicly visible reviews of consumer products.
- Basic exploratory analysis to better understand reviews.

## Initial questions

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- Amazon reviews are often the most publicly visible reviews of consumer products.
- Basic exploratory analysis to better understand reviews.
- What are the properties of helpful reviews?

## Ratings

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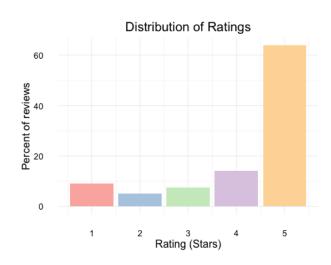
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#### Commonly used words in reviews

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Positive reviews

Negative reviews

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# II. Helpfulness of Reviews

## How many reviews are helpful?

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## How many reviews are helpful?

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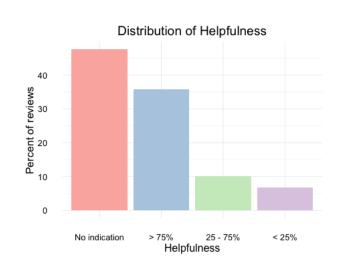
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# How do ratings relate to helpfulness?

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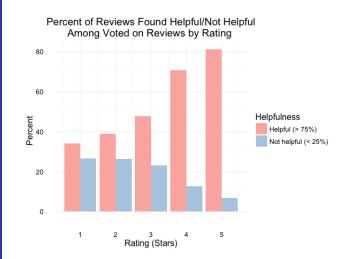
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#### III. Word count

# How do word counts vary by rating?

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## How do word counts vary by rating?

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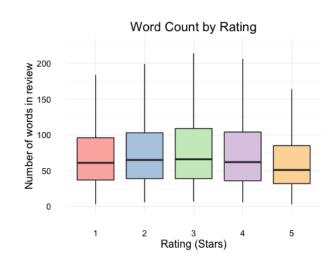
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## How do word counts affect helpfulness?

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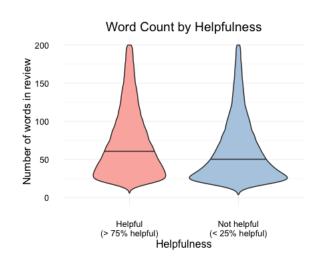
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# IV. Frequency

#### Reviewer frequency

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Defining a frequent reviewer as one who has made over 50 reviews, frequent reviewers account for over 5% of all reviews.

## Reviewer frequency

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- Defining a frequent reviewer as one who has made over 50 reviews, frequent reviewers account for over 5% of all reviews.
- Does the behavior of frequent reviews differ from that of infrequent reviews?

# Are frequent reviewers more discerning?

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# Are frequent reviewers more discerning?

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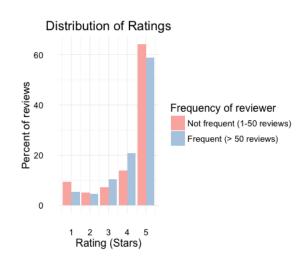
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# Are frequent reviewers more helpful?

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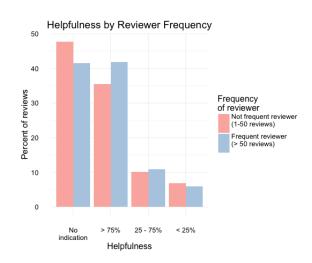
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## Are frequent reviews more verbose?

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## Are frequent reviews more verbose?

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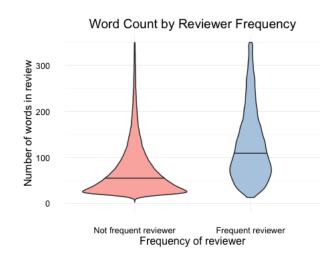
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■ Positive reviews are very common.

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- Positive reviews are very common.
- Positive reviews are shorter.

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- Positive reviews are very common.
- Positive reviews are shorter.
- Longer reviews are more helpful.

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- Positive reviews are very common.
- Positive reviews are shorter.
- Longer reviews are more helpful.
- Despite being more common and shorter, positive reviews are found more helpful.

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- Positive reviews are very common.
- Positive reviews are shorter.
- Longer reviews are more helpful.
- Despite being more common and shorter, positive reviews are found more helpful.
- Frequent reviews are more discerning, write longer reviews, and are more helpful.

#### Further directions

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Analyze categories of products.

#### Further directions

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- Analyze categories of products.
- Prediction model for the helpfulness of a review.

#### Further directions

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- Analyze categories of products.
- Prediction model for the helpfulness of a review.
- Relationship between products and reviewers.