Book Reading Analysis:

Understanding Generational reading Habits & Preferences

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Overview

PROJECT GOAL
○——————————
01
To analyze book reading behaviors, identify trends, and provide actionable insights.

PROBLEM STATEMENT
○——————————
02
Most people don't read anymore, what are the implications?

KEY OBJECTIVES
○——————————
03
Generational preferences in reading, reading habits based on education levels, etc.

DATA SOURCE
○——————————
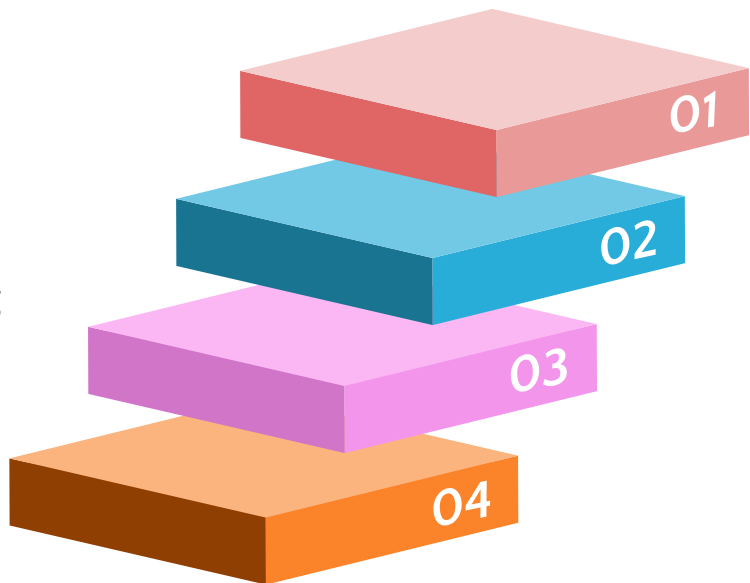04
Pew Research Center Survey Data(March 2016)
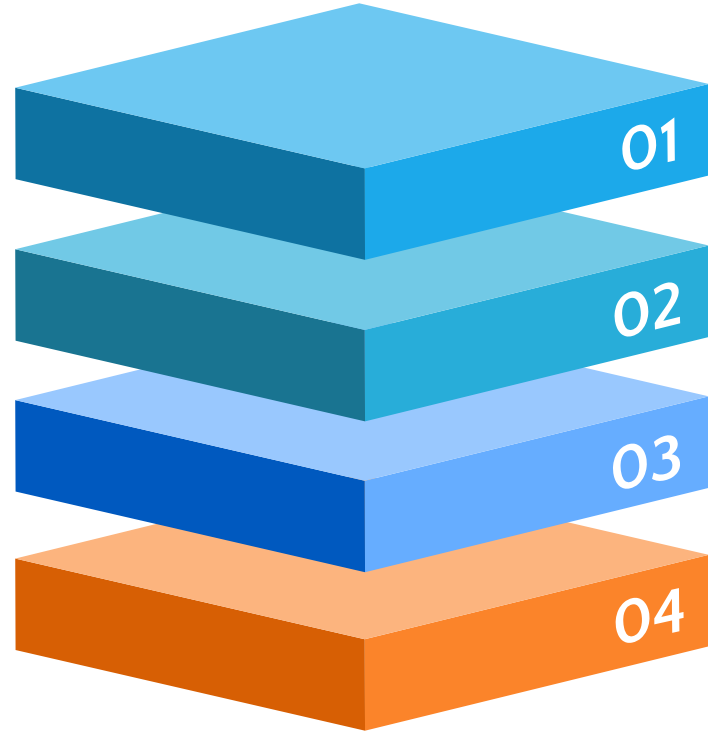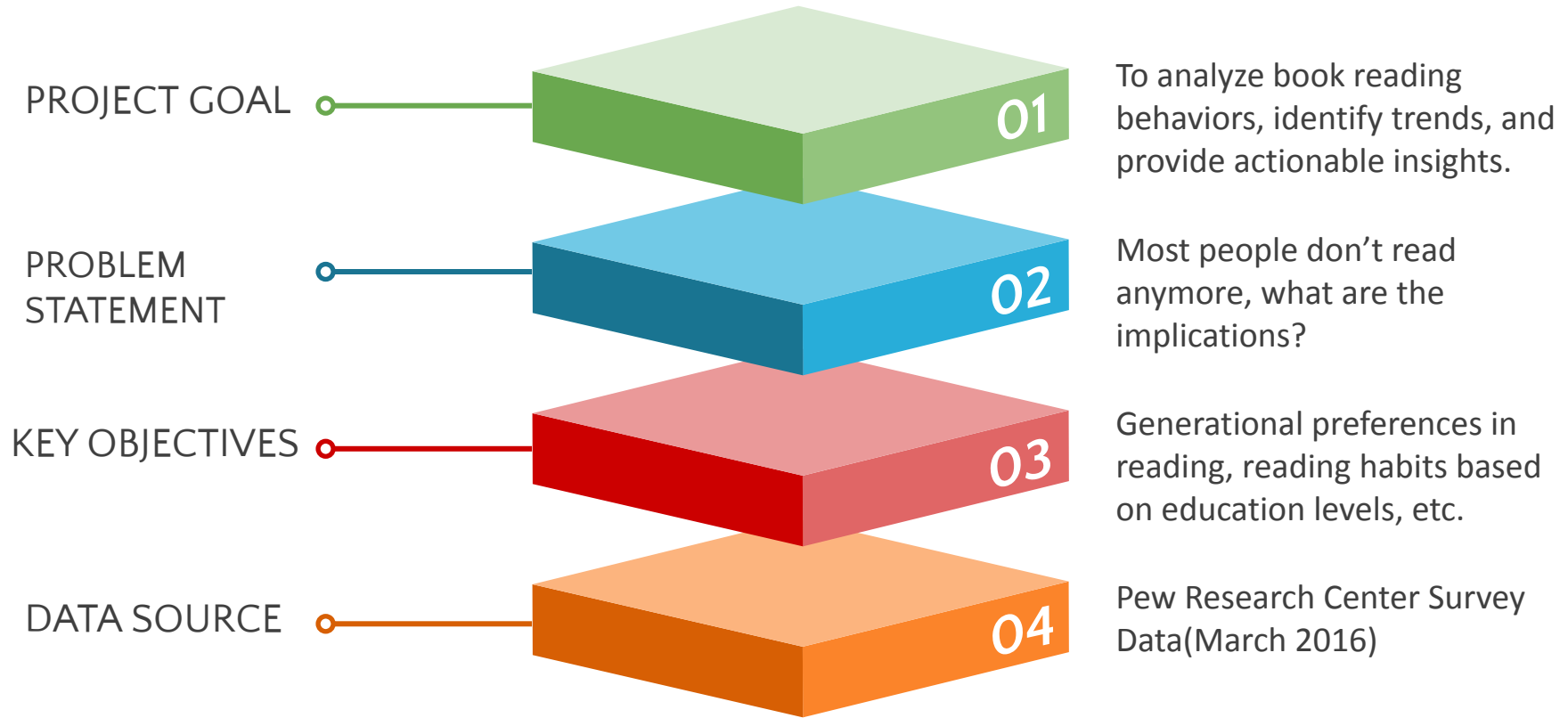
Methodology

Data Collection and Preparation

- Survey data from Pew Research.
- Preprocessing: feature selection, renaming, handling coded & missing values

Innovation

Interactive Ipywidget UI predicting reading frequency and providing personalized recommendations.

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Predictive Model

Logistic Regression model trained to predict is frequent reader.

Key Results

Female read more than Male. Higher education correlates to most reading. Young people read less.
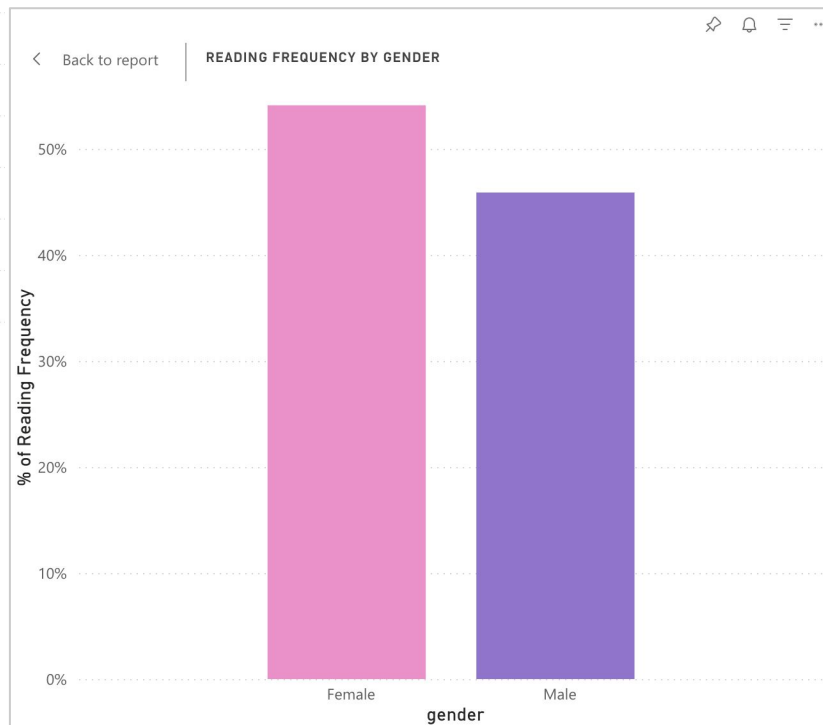
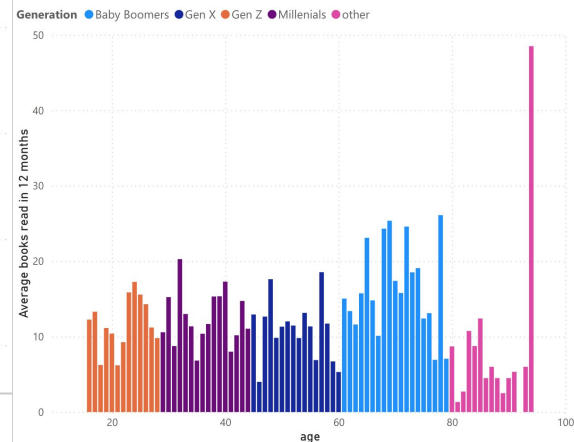# Results: Demographics & Reading Frequency
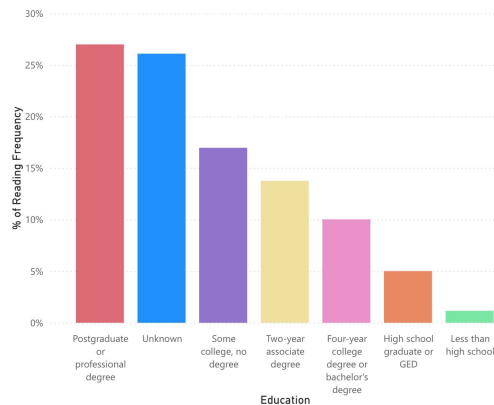
Gender & Education

Female Show higher % of frequent readers than Male. Higher education correlates with increased reading frequency.

Generation

Baby Boomers and Gen X read more books annually. Decline in reading frequency in younger generations.
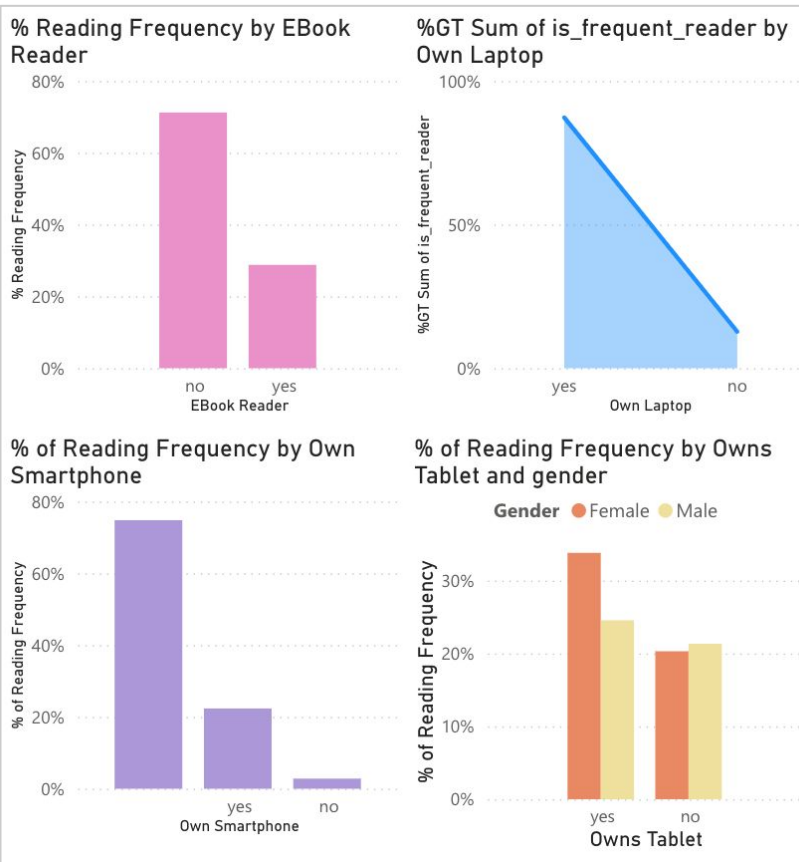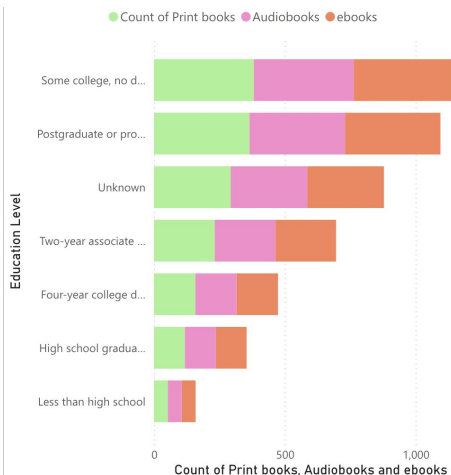
Results: Device Ownership & Book Formats

Ebook Reader

eBook reader ownership correlates with frequent reading.

Male

Print books are most popular across education levels and Digital formats usage increases with higher education.

Smartphone

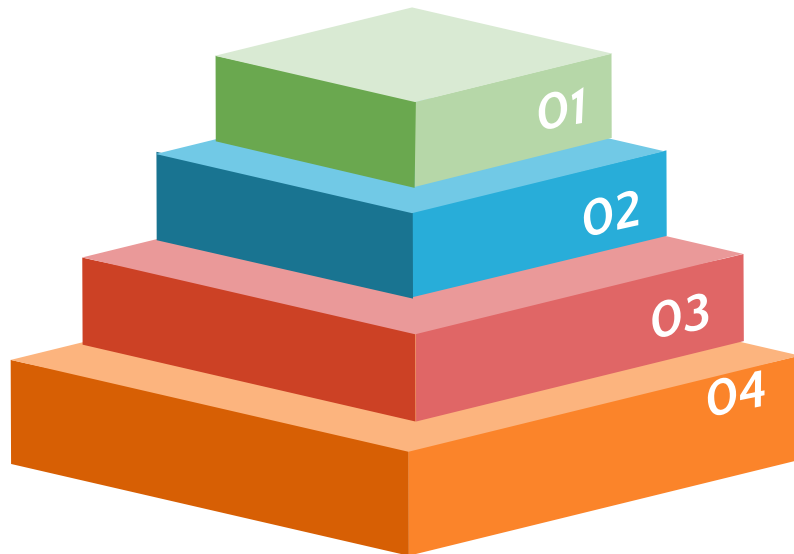Smartphones show lowest correlation despite high ownership

% Reading Frequency by EBook Reader

%GT Sum of is_frequent_reader by Own Laptop

% of Reading Frequency by Own Smartphone

% of Reading Frequency by Owns Tablet and gender

Recommendations for future work

Strategic Marketing

Target online reader platforms and develop diverse content formats.

User Engagement

- Implement A/B testing.
- Gather user feedback for improvements.

Model Enhancement

Explore advanced Machine learning models.

Data Enhancement

Collect granular and advanced data and Investigate 'Unknown' education category

Innovation

Demographics ●————————————

Psychographics ○————————————

Predictions ○————————————

Recommendations ○————————————

Age: ———●———————— 26

Gender: [Female ▼]

Education: [Some college, no degree ▼]

Reading Habits:

☑ Reads Print Books

☐ Reads Audiobooks

☑ Reads E-books

Device Ownership:

☑ Owns Smartphone

☐ Owns E-book Reader

☐ Owns Tablet

☑ Owns Laptop

[**Prediction & Recommendation**]

Prediction: My model predicts this person is **A frequent reader.**

Personalized Recommendation:

Based on our data, Females who own a ebook reader read an average of 27.07 books, compared to 13.44 for non-owners. We recommend you consider reading on a ebook reader to increase your reading!

This user interface incorporates the logistic regression model and allows a user to add their age, gender, education level and reading preferences.

Predicts whether someone is a frequent reader or not.

Provides a recommendation based on available insights.

Thank You,
For watching!