*Data Visualization: CS343*

**One Pager: Influence of People's Age on Reading Frequency  
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**ABSTRACT**Reading habits evolve with age due to various social, cognitive, and lifestyle factors. This study examines how age impacts reading frequency, with a particular focus on genre preferences—especially Fiction. Through statistical analysis and data visualization, we aim to uncover trends in engagement across different age groups, offering valuable insights for publishers and content creators.

**Objectives**

* **Identify Reading Trends by Age**: Analyze the relationship between age and reading frequency across multiple genres.
* **Examine Fiction’s Popularity**: Test whether Fiction is significantly more preferred by readers aged 15–40.
* **Provide Data-Driven Insights**: Offer recommendations to publishers for targeted content strategies.

**Approach**

1. **Data Collection & Preparation**:
   * Dataset: Kaggle's Book Readers Dataset (3,524 readers).
   * Data cleaning and preprocessing to ensure accuracy and reliability.
2. **Statistical Analysis & Visualization**:
   * **Genre-Based Reading Trends**: Scatter plots and bar charts to illustrate genre preferences by age.
   * **Correlation Analysis**: Linear regression to detect reading trends.
   * **Skewness Analysis**: Assess the asymmetry in reading frequency distributions.
   * **Kurtosis Analysis**: Identify extreme reading behaviors—unusually high or low reading rates, unexpected genre preferences, or potential data inconsistencies. High kurtosis indicates more extreme deviations, while low kurtosis suggests a more uniform distribution.
3. **Findings & Recommendations**:
   * **Peak Reading Engagement**: Fiction is most popular among ages 15–40, while Nonfiction peaks in the 30s.
   * **Refined Targeting for Publishers**: Insights to optimize content strategies for different demographics.

**Expected Outcomes**

* **Deeper Understanding of Reading Behavior**: Insights into how age influences reading habits.
* **Better Publishing Strategies**: Data-backed recommendations for audience targeting.
* **Increased Genre Awareness**: Ideas for promoting underrepresented genres.

**Future Directions**

* **Broadening the Demographic Scope**: Investigate additional factors like education, profession, and lifestyle influences.
* **Digital Reading Evolution**: Study how audiobooks and e-books affect engagement.
* **Advanced Personalization Models**: Apply machine learning to predict and recommend reading preferences.

This study aims to provide actionable insights for publishers while deepening our understanding of how reading habits shift with age.