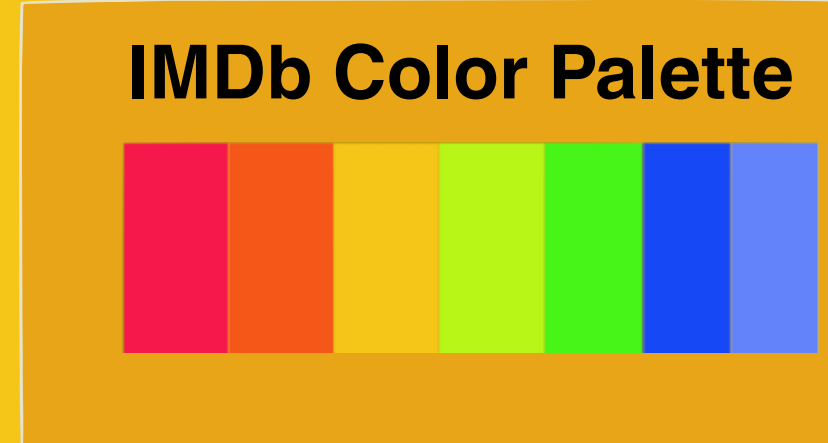


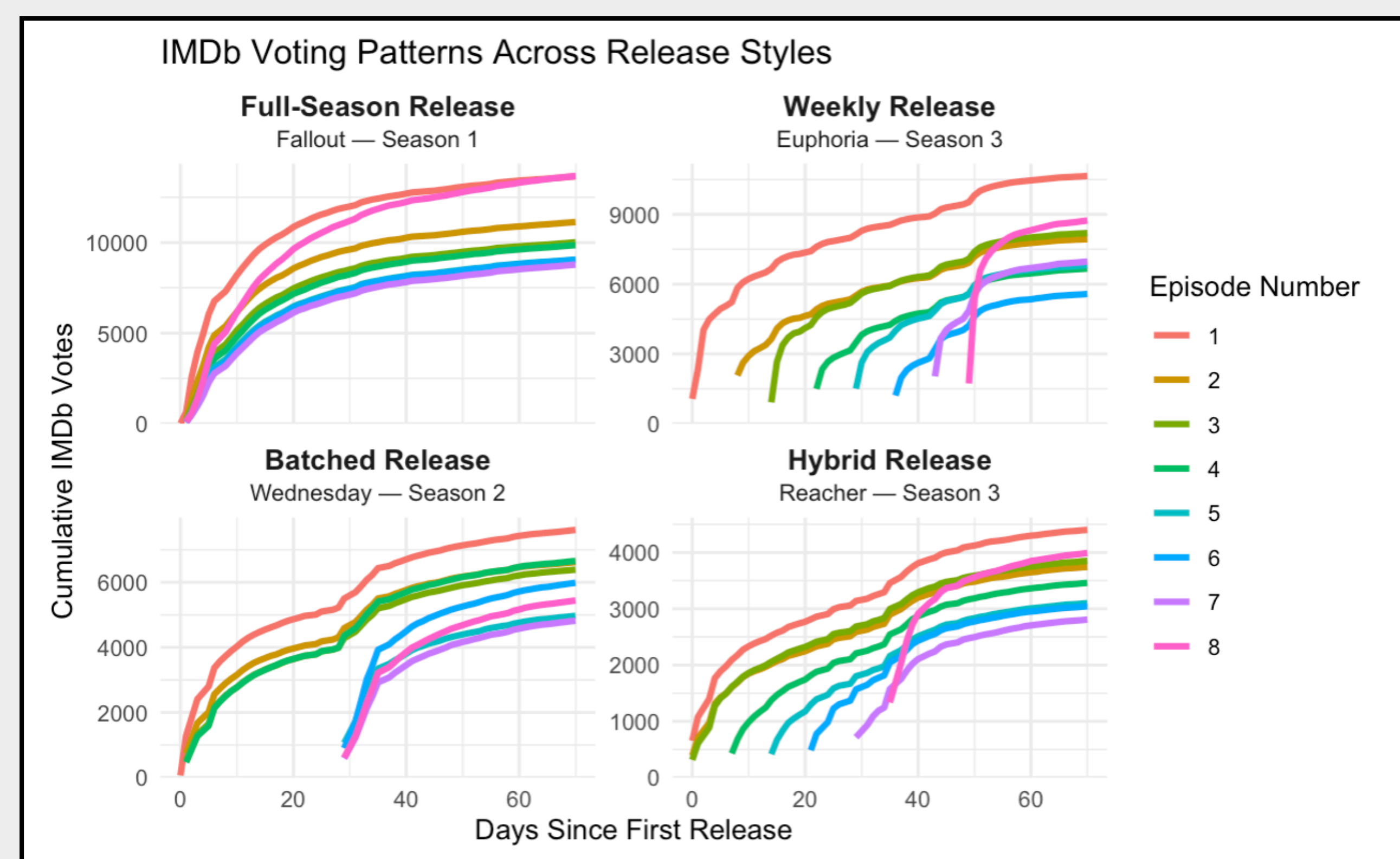
Attention Decay: An Analysis of IMDb Voting Patterns

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Introduction

- This study uses IMDb data to examine if user attention to TV shows exhibits the same patterns of decay as the broader mass media phenomena of information "half-life" and issue-attention cycles.
- User attention is measured through the number of new votes received by each episode per day and the attention half-life is defined as the amount of time required for daily voting activity to fall to half of its peak level.



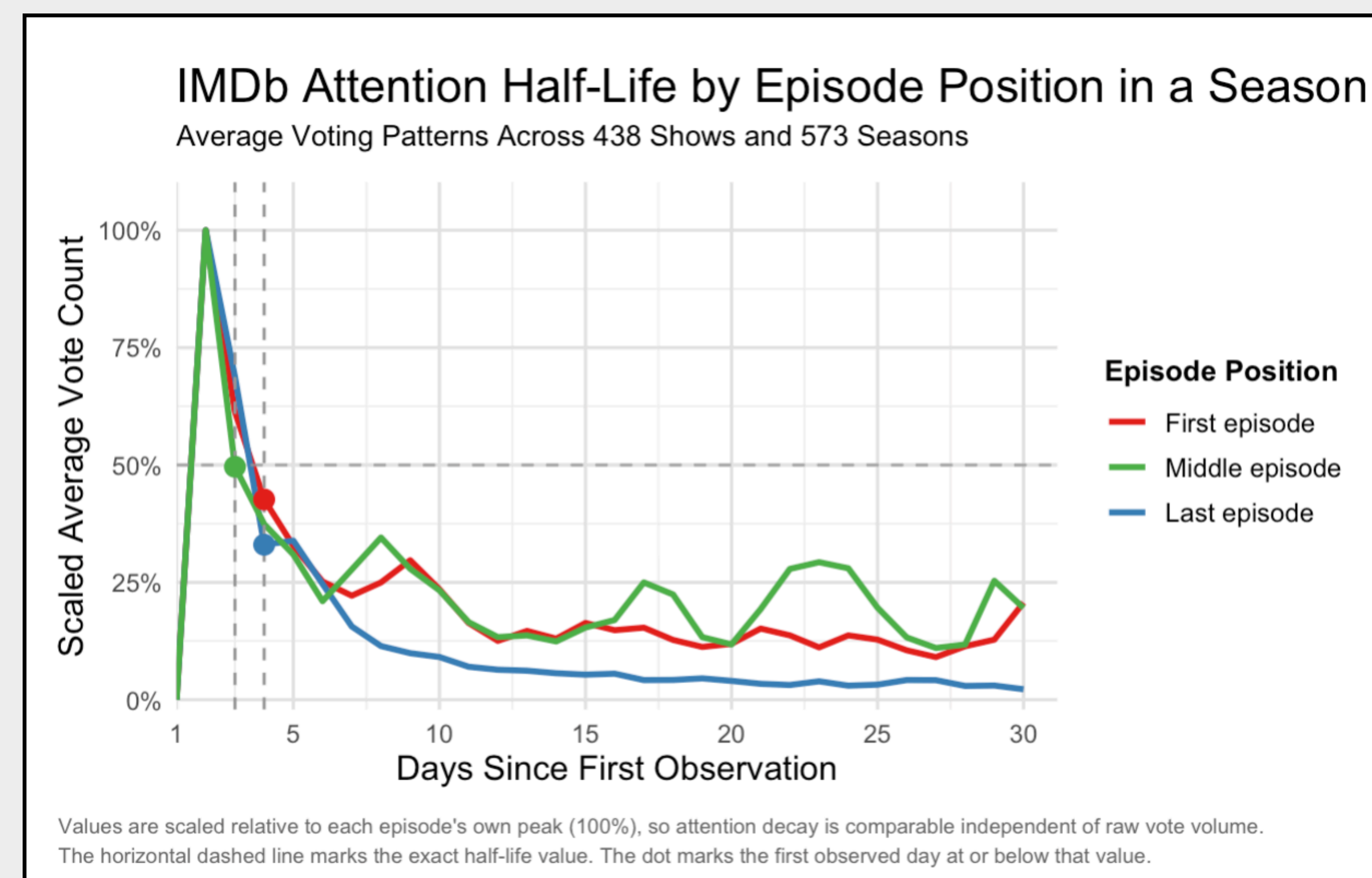
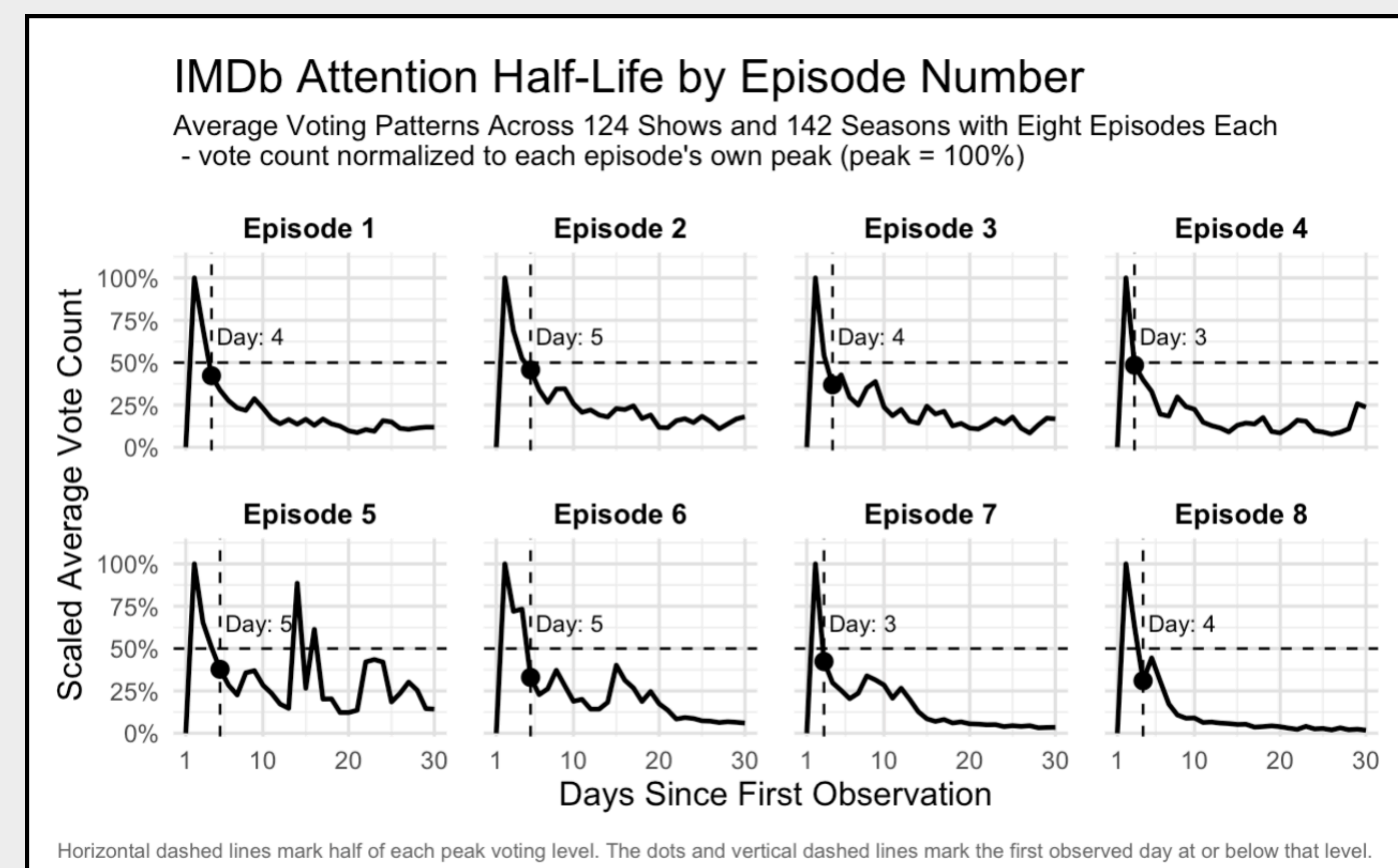
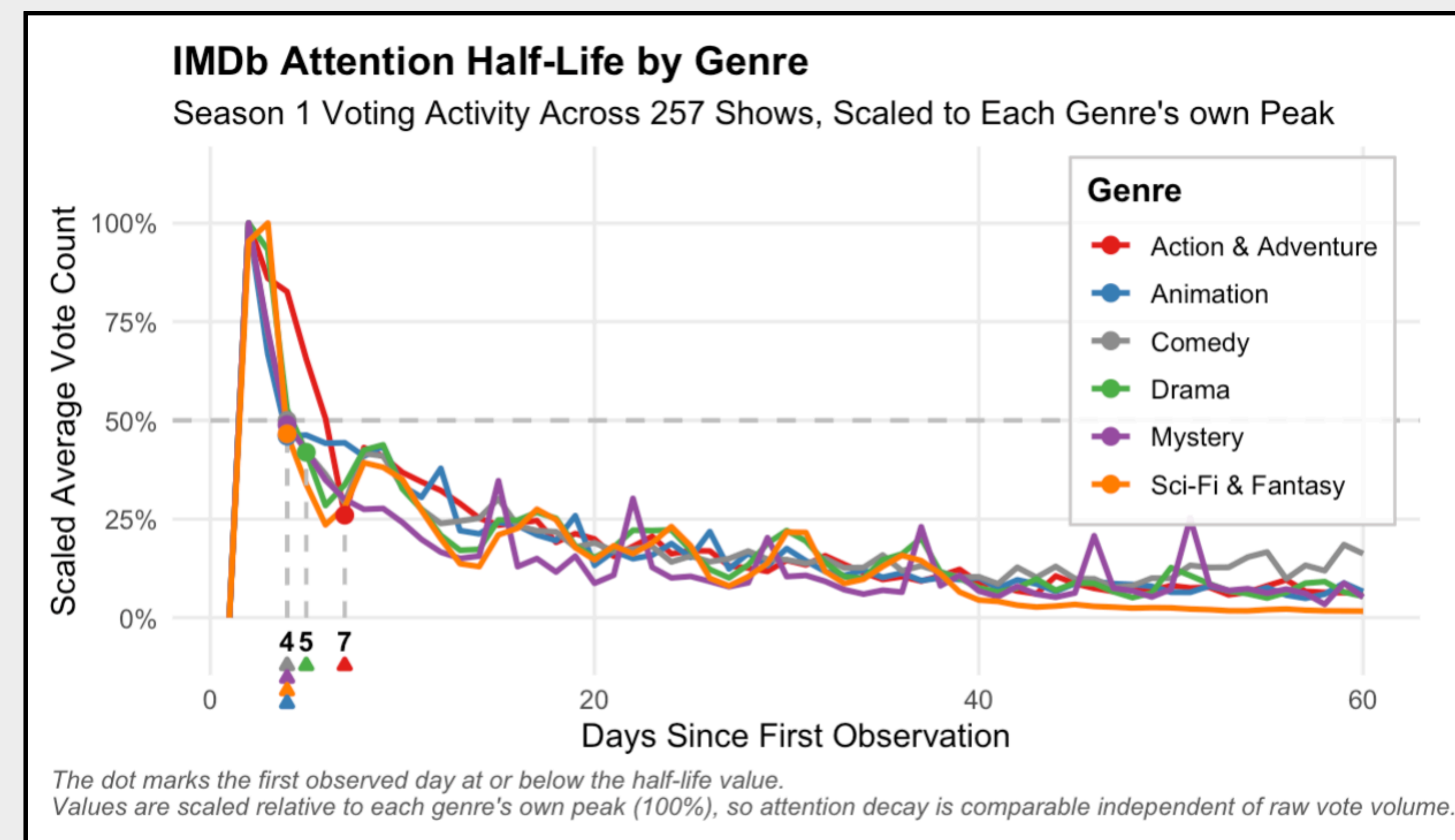
Research Questions

- Does attention decay faster and does the attention "half-life" become shorter for episodes released later in a season?
- Do earlier episodes experience increased voting activity immediately before a season finale becomes available?
- Do voting patterns vary across television genres and release styles?

Data & Methods

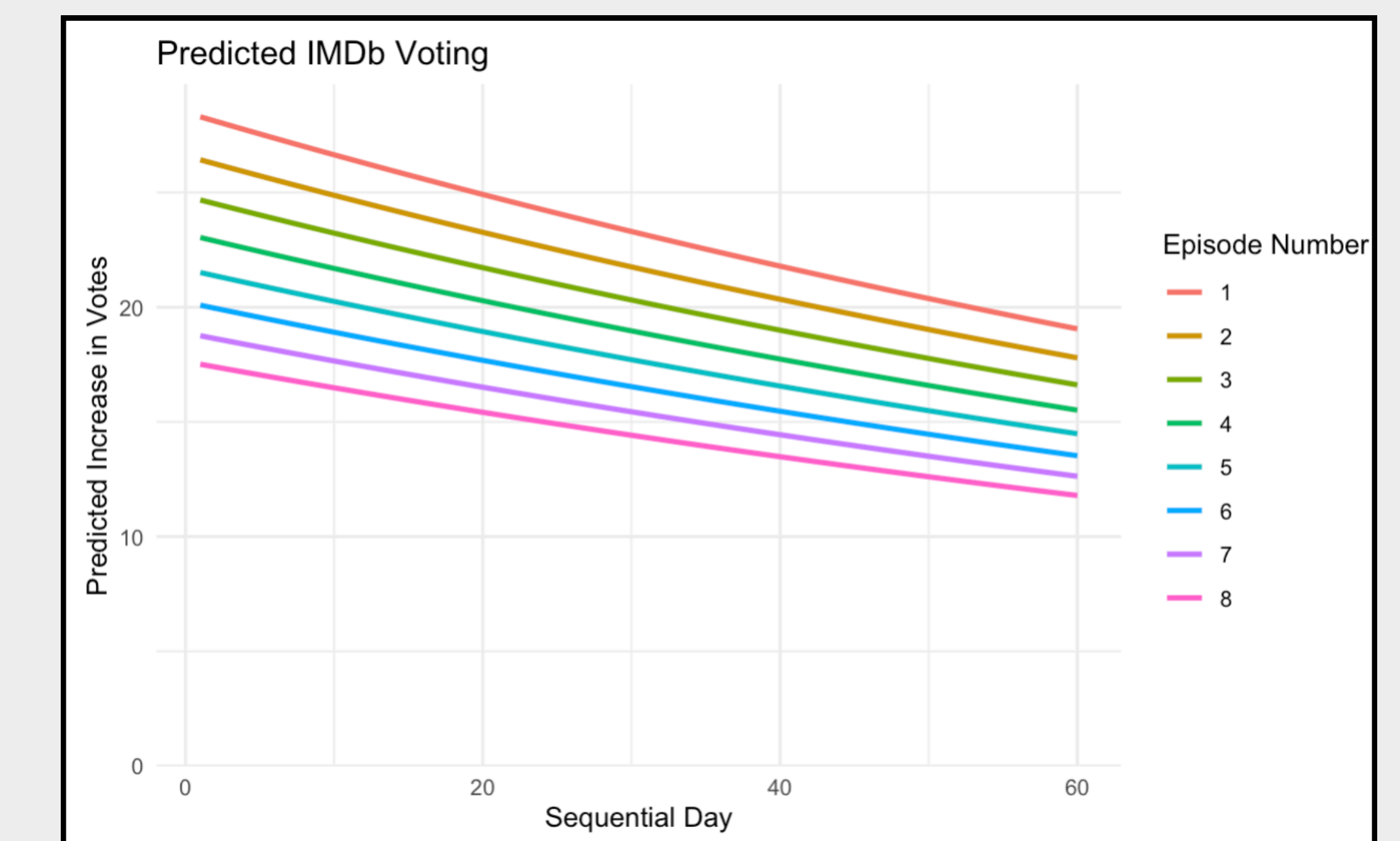
- Collected daily snapshots of tables with aggregate user vote information from IMDb.com and used data from TMDb.com to get episode air dates and genres.
- The dataset includes the TV show seasons that started on Jan. 2, 2024 or later, and ended by June 10, 2026.
- Limited the analysis to the shows that aired in the U.S. on broadcast channels (ABC, NBC, CBS, FOX) and streamed on U.S. platforms (Netflix, HBO, Prime Video, Paramount+), as well as excluded shows that had accumulated fewer than 100 votes.
- Calculated the half-life statistics and modeled daily vote increments using a negative binomial regression to account for overdispersion.

Results



Model Findings

- NB Regression Predictors: **sequential day**, the number of days since an episode's release, to account for the decay in voting activity + **episode number** to model the decay in interest between episodes.
- Each one-episode increase is associated with about a 6.6% decrease in expected daily votes, holding sequential day constant.
- Each additional day is associated with a 0.67% decrease in expected daily votes, holding episode number constant.



Conclusion

- Television attention is intense but short-lived, usually falling by half within the first week regardless of an episode's position or genre.
- Later episodes receive fewer daily votes and voting activity declines significantly over time after release.
- Although this pattern is widespread, some shows experience renewed attention around the season finale, which may reflect binge-watchers waiting until the full season is available.
- After the first-week drop, voting stays low across genres, typically below 25% of peak after two weeks.

Discussion

The short attention half-lives observed across television episodes may reflect the issue-attention cycle and the rapid turnover of public interest in modern digital culture. These patterns may provide insight into the pace of modern media consumption and the potential "boredom effect," in which repeated exposure contributes to increasingly short cycles of public attention.