hum BY SILVERCHAIR

Update 1/26

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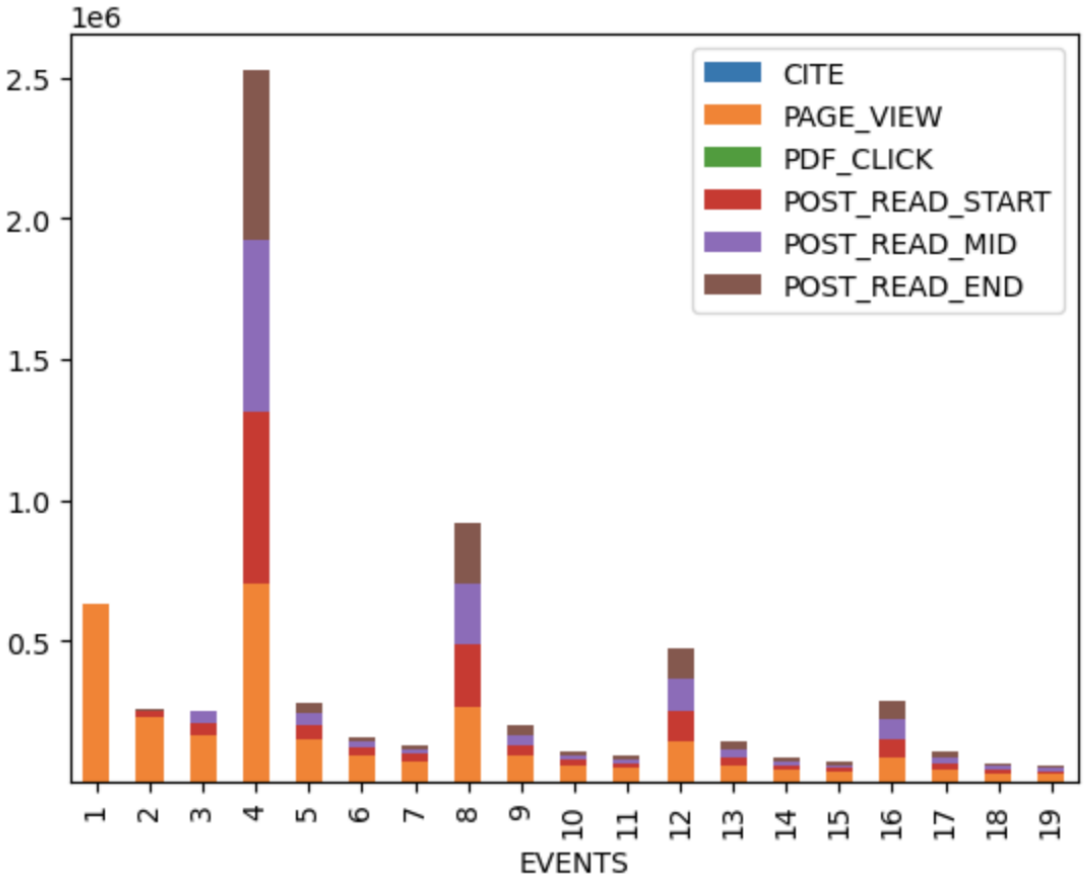
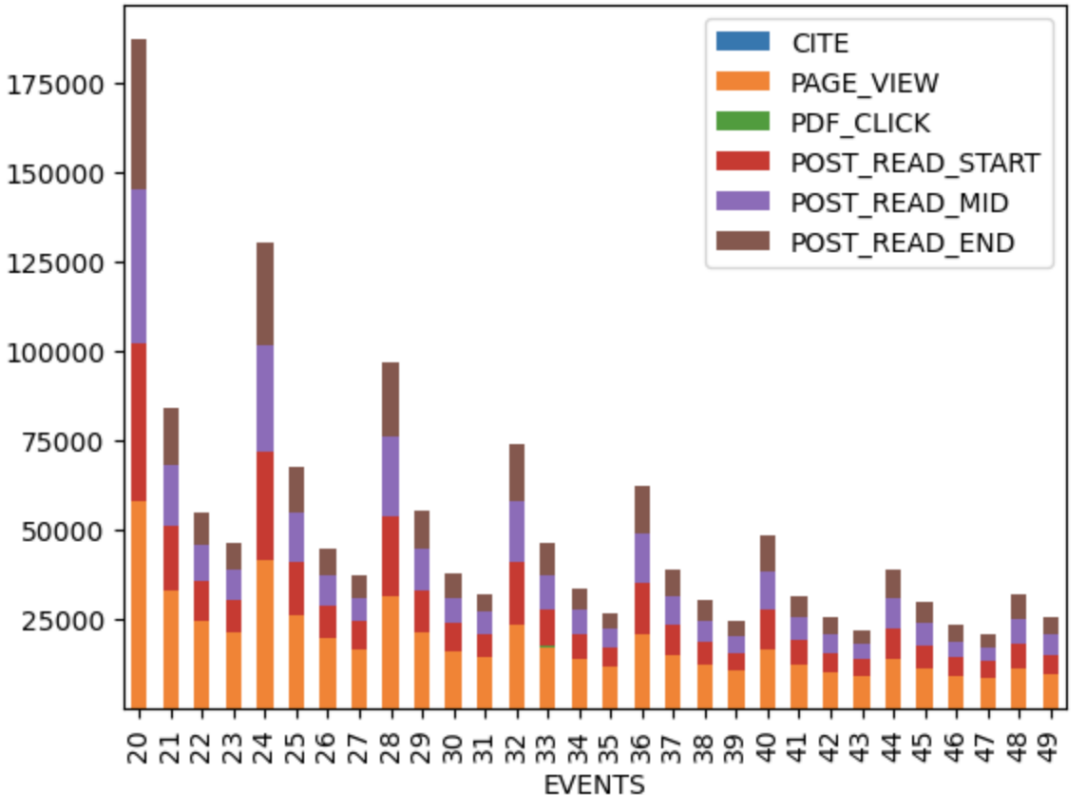
Cyclicity Study

1- 19 Events

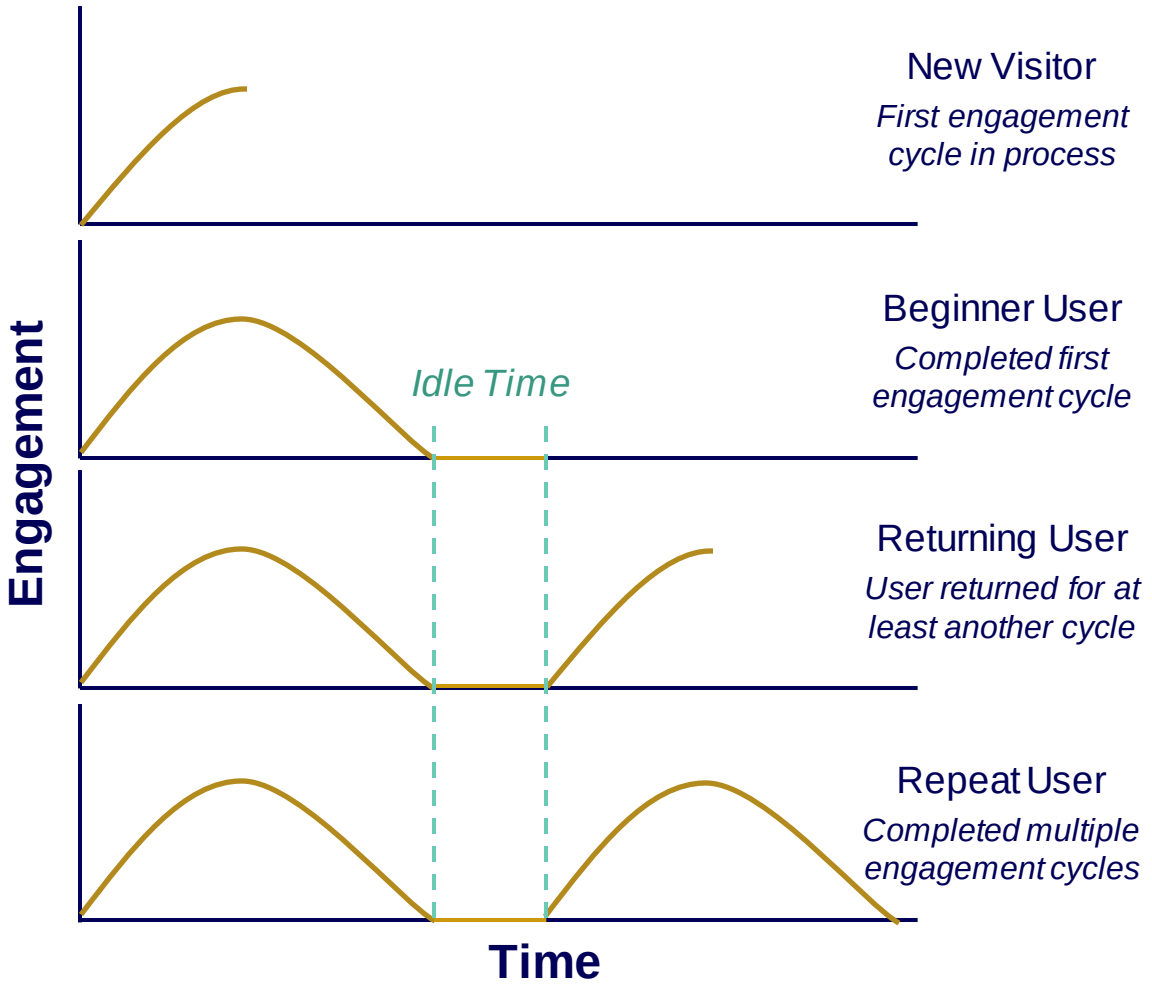


20 – 49 Events



Proposed Path Forward

User Archetype Approximations



Proposed Modeling Technique

- Leverage idle time interval as special event to denote period of disengagement
  - Mark as idle if greater than 95% of users' event gaps
  - Preliminary value of ~73 hours of idle time between event cycles per user (~280 hours as initial benchmark for churned out based on 90% quantile of users' maximum event gaps)
- If an event sequence is not idle, predict the rest of the events until idle period is expected
  - Then, use most recent completed sequence to predict whether the user will return
- Sequence length of interest appears to be 16-48 events
- Next steps would be to encode sequences of the desired lengths and to perform training for both sequence prediction and classification

Next Steps

1. Understand how the event data is being recorded: why are numbers for read start, mid, and end almost even?

2. Create a pitch on the model build to be used as a framework moving forward. The goal is to explain the model to someone in sales/marketing.

3. Start testing out a model using the framework and the cleaned data.