**Step 1: Association between User Engagement and Probability of Ephemerality**

*Script: step1.01.Rmd*

**Summary:**

To determine whether user engagement metrics were associated with the probability of ephemerality of NSSI content on TikTok, I conducted a stepwise logistic regression using view count, like count, comment count, and share count as predictors of ephemerality.

**Interpretation of Results:**

The stepwise logistic regression model began with all four predictors (i.e., view count, like count, comment count, and share count), but at each step, none of the user engagement metrics contributed meaningfully to model fit as measured by Akaike Information Criterion (AIC). Variables were iteratively removed, and the final model selected was the intercept-only model (AIC = 1214.62), indicating none of the user engagement metrics significantly explained variation in ephemerality. The coefficient for the intercept was statistically significant (β = -1.40, *p* < .001), suggesting that the baseline log-odds of a video becoming ephemeral was low. The corresponding odds ratio (OR = 0.25; 95% CI: [0.21, 0.28]) indicates that, overall, videos were much more likely to remain available, but this probability was not influenced by user engagement metrics. These findings suggest that user engagement does not appear to be a determining factor in whether NSSI content becomes ephemeral on TikTok.

**Outputs:**

**Start: AIC = 1220.66**

*Model: availability ~ view\_count + like\_count + comment\_count + share\_count*

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Df** | **Deviance** | **AIC** |
| - Share count | 1 | 1210.7 | 1218.7 |
| - View count | 1 | 1211.9 | 1219.9 |
| - Like count | 1 | 1212.1 | 1220.1 |
| - Comment count | 1 | 1212.5 | 1220.5 |
|  |  | 1210.7 | 1220.7 |

**Step: AIC = 1218.68**

*Model: availability ~ view\_count + like\_count + comment\_count*

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Df** | **Deviance** | **AIC** |
| - View count | 1 | 1211.9 | 1217.9 |
| - Like count | 1 | 1212.1 | 1218.1 |
| - Comment count | 1 | 1212.5 | 1218.5 |
|  |  | 1210.7 | 1218.7 |
| + Share count | 1 | 1210.7 | 1220.7 |

**Step: AIC = 1217.94**

*Model: availability ~ like\_count + comment\_count*

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Df** | **Deviance** | **AIC** |
| - Like count | 1 | 1212.1 | 1216.1 |
| - Comment count | 1 | 1212.5 | 1216.5 |
|  |  | 1211.9 | 1217.9 |
| + View count | 1 | 1210.7 | 1218.7 |
| + Share count | 1 | 1211.9 | 1219.9 |

**Step: AIC = 1216.12**

*Model: availability ~ comment\_count*

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Df** | **Deviance** | **AIC** |
| - Comment count | 1 | 1212.6 | 1214.6 |
|  |  | 1212.1 | 1216.1 |
| + Like count | 1 | 1211.9 | 1217.9 |
| + Share count | 1 | 1212.1 | 1218.1 |
| + View count | 1 | 1212.1 | 1218.1 |

**Step: AIC = 1214.62**

*Model: availability ~ 1 (intercept-only model)*

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Df** | **Deviance** | **AIC** |
|  |  | 1212.6 | 1214.6 |
| + Comment count | 1 | 1212.1 | 1216.1 |
| + Like count | 1 | 1212.5 | 1216.5 |
| + View count | 1 | 1212.6 | 1216.6 |
| + Share count | 1 | 1212.6 | 1216.6 |

**Coefficients:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Estimate Std.** | **Error** | **z value** | **Pr(>|z|)** |
| (Intercept) | -1.40173 | 0.07191 | -19.49 | <2e-16 \*\*\* |
| Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1 | | | | |

**Odds Ratio:**

(Intercept)

0.2461696

**95% Confidence Intervals:**

|  |  |
| --- | --- |
| 2.5% | 97.5% |
| 0.2133663 | 0.2828785 |