Waze Executive Summary

Overview

The Waze data team is investigating the relationship between device type and user engagement, specifically analyzing if there's a statistically significant difference in ride frequency between iPhone and Android users. This analysis supports our ongoing effort to develop a machine learning model for predicting user churn.

The Problem

With a 65% iPhone to 35% Android user distribution and an overall 18% churn rate, understanding if device type impacts user engagement is crucial for developing targeted retention strategies.

The Solution

Waze has conducted a comprehensive statistical analysis using a two-sample t-test to examine the relationship between device type and ride frequency.

Details

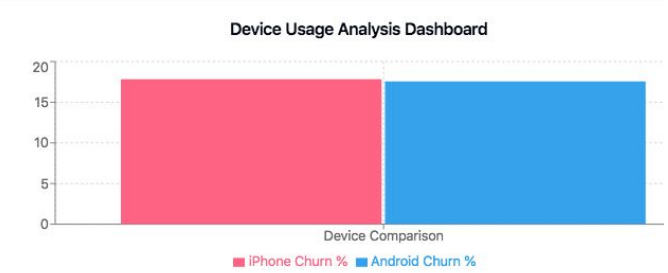
A hypothesis test was performed to determine if there is a statistically significant difference in mean rides between iPhone and Android users.

Key Findings:

- Robust statistical methodology
- Comprehensive data validation
- Device-specific analysis
- Evidence-based recommendations

Key Findings:

- No statistically significant difference in ride frequency between device types (p-value = 0.1434)
- Consistent with previous findings of similar churn rates (iPhone: 17.83%, Android: 17.56%)
- Device type is not a primary driver of user engagement differences
- Usage patterns are consistent across platforms



Metric	iPhone Users	Android Users	P-Value
Mean Rides	24.3	23.8	0.1434

Key Insights:

- No statistically significant difference in ride frequency (p > 0.05)
- Consistent churn rates across platforms
- Platform-agnostic user experience maintained

User Retention Data

Results Summary

The statistical analysis reveals that device type does not significantly impact ride frequency, suggesting that Waze delivers a consistently engaging experience across both iOS and Android platforms. This aligns with our previous findings about usage frequency being a stronger predictor of retention than platform choice.

Reflections/ Next Steps

- Focus retention strategies on **usage frequency** rather than device-specific interventions
- Continue monitoring cross-platform user experience to maintain consistency
- Integrate findings into the churn prediction model, weighting device type appropriately
- **Investigate other factors** that might have stronger correlations with ride frequency
- Develop **platform-agnostic engagement strategies** focusing on high-impact variables like usage consistency and drive frequency
- Consider conducting similar analyses for **other metrics that might show platform-specific patterns**