

User Engagement Insights and Marketing Opportunities for Tinder

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Executive Summary

This report analyzes user engagement patterns in a Tinder dataset to identify which demographic group offers the strongest opportunity for the next marketing campaign. We measured engagement through three key behavioral metrics: app opens, total swipes, and conversation length. These metrics reflect the user retention rate, the frequency of interactions on the app, and the duration of conversations with matches.

The analysis we conducted showed clear patterns. Younger users, specifically those aged 18 to 24, generate the highest total number of app opens and swipes. This age group frequently browses and interacts with Tinder, but their conversations tend to end quickly. Users aged 25 to 34 also exhibit strong activity, but engagement drops sharply after the age of 34, despite the conversation length being relatively long. This means older users interact less but have deeper, more sustained conversations.

Sexual orientation revealed another major divide. Gay and bisexual men had the highest average app opens and swiping activity in the dataset, but they also had the shortest conversations. Straight users showed more moderate activity, but the longest conversation lengths. Lesbian users showed low levels of both activity and conversation depth. In addition, users who linked Spotify had noticeably longer conversations than those who did not link any social media, indicating that profile depth plays a role in gaining interests.

These patterns highlight a clear marketing opportunity. Gay men between the ages of 18 and 35 are already highly active on the platform, but have very short conversations with their matches. This provides the marketing team with the opportunity to increase engagement and retention. A marketing campaign targeted at this group should focus on features that help extend conversations, such as introducing prompts, creating shared interest tags, and promoting social media linkage. Encouraging users to link Spotify can further improve conversation length. Strengthening conversation quality within this demographic group can boost user satisfaction, increase retention, and support long-term platform growth.

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1. Introduction

The purpose of this report is to identify which demographic group offers the greatest potential for boosting Tinder's overall engagement. To evaluate user behavior, we examined three indicators of activity on the platform: how often users open the app, how frequently they swipe, and the length of their conversations with matches. These measures together capture the intensity of user participation and the depth of their interactions.

This question is important because engagement is strongly linked to retention. According to a Forbes Health Survey, 78% of dating app users reported feeling “dating-app burnout”, 22% of whom linked causation to the feeling of “endlessly swiping through potential matches” (Prendergast, 2024). As a result, people are decreasing their time spent on dating apps in favor of sports clubs that have “turned the city’s sports leagues... into the hottest places to date”(Stone, 2024). With retention and profit at risk, Tinder must devise a strategy to increase engagement. The more users swipe and talk, the more likely they are to continue using Tinder, subscribe to paid features, and participate in the overall platform community. Understanding which users are the most active and where engagement is low helps the marketing team identify where a campaign can have the largest impact.

To answer the question, we analyzed a dataset of Tinder users obtained from Kaggle. We used Python to clean and examine the data. We analyzed engagement across age, sexual orientation, education level, and whether users were linked to Instagram or Spotify. Visual patterns from the graphs guided our interpretation. The goal was to identify clear, consistent trends that point to a target demographic with high potential for deeper engagement.

2. Methodology

The dataset contained over 1,200 users and included variables such as age, orientation, app opens, total swipes, and median conversation length. We cleaned the dataset by removing missing values, creating age groups, standardizing labels, and creating new time-based variables for conversation length.

Additionally, the dataset did not directly include a clear sexual orientation variable. Therefore, we created a new orientation column using each user's gender and the gender they were interested in. This approach allowed us to classify users as straight, gay, lesbian, or bisexual based on their stated preferences. Obviously, there are other categories within orientation to consider (ie, asexual), but for our purposes, we kept it general. The absence of an explicit orientation field is likely due to privacy protections since sexual orientation is considered sensitive information and is not typically shared in publicly available datasets. Creating this column ensured that we could analyze engagement patterns across orientations while still respecting the structure and limitations of the original dataset.

We conducted our analysis in Python using Google Colab, running group-level statistics and creating visualizations to highlight key trends. Rather than emphasizing exact numerical values, we focused on the broader patterns shown in the graphs, which clearly revealed where engagement was strongest and where it declined. These visual insights allowed us to identify the demographic group with the greatest potential for a targeted marketing campaign.

3. Findings

Before interpreting engagement patterns, it is important to note the distribution of sexual orientations in the dataset (as shown below). Straight users accounted for more than 90% of the total sample. Gay users, bisexuals, and lesbians make up a much smaller share. Even with this imbalance, the engagement differences across orientations are significant and consistent enough to identify clear trends. The smaller groups, especially gay users and bisexuals, showed distinct patterns in app activity and conversation depth that stood out despite representing only a small fraction of the dataset.

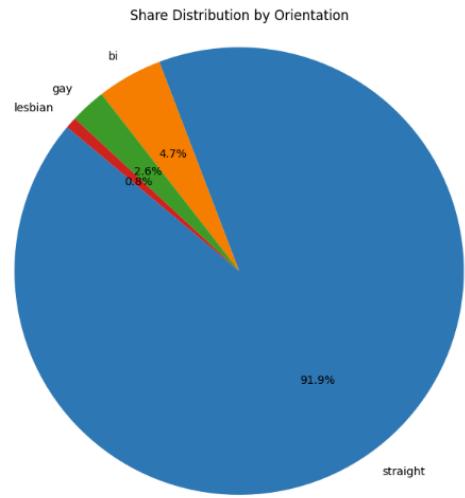


Figure 1. Orientation Distribution of Dataset

3.1 Age Based Engagement Patterns

The analysis of age groups revealed a clear split between activity level and conversation depth. Users aged 18 to 24 demonstrated the highest number of app opens by a significant margin, suggesting frequent check-ins and strong interest in browsing profiles throughout the day. The 25 to 34 group followed with strong engagement, although at a noticeably lower level than the youngest users. After age 34, the app opens declined sharply. Users above 45 showed minimal app usage and contributed close to zero of the total interactions.

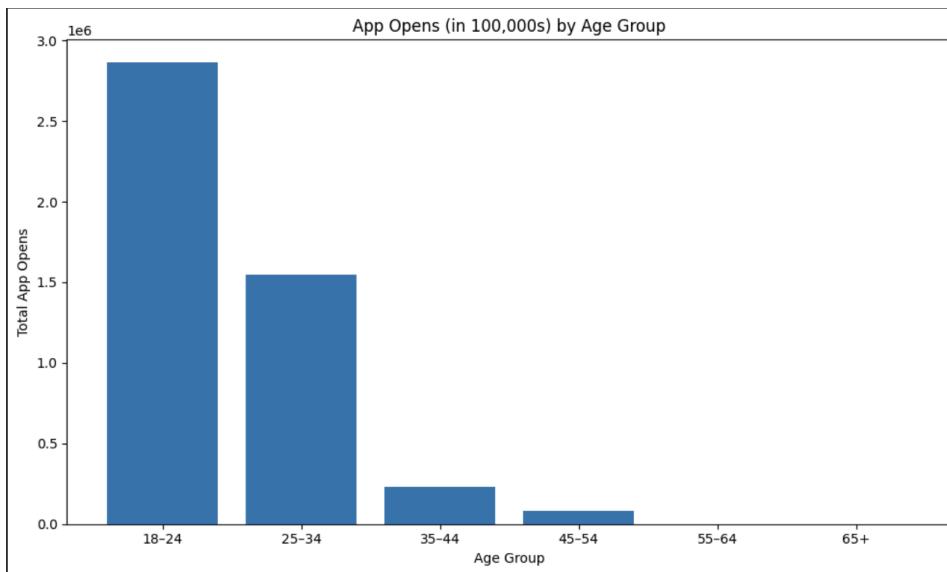


Figure 2. App Opens by Age Group.

A similar pattern appeared in total swipes. Users aged 18 to 24 had the highest swipe volume by a wide margin, showing that they are the most active browsers on the platform and have a greater interest in matching with people. The 25 to 34 group also showed strong swiping behavior, but at a noticeably lower level than the youngest group. Swipe activity also dropped sharply after age 34, and users aged 45 and older had almost no swipe activity. This confirms that the majority of Tinder's matching activity is driven by younger adults.

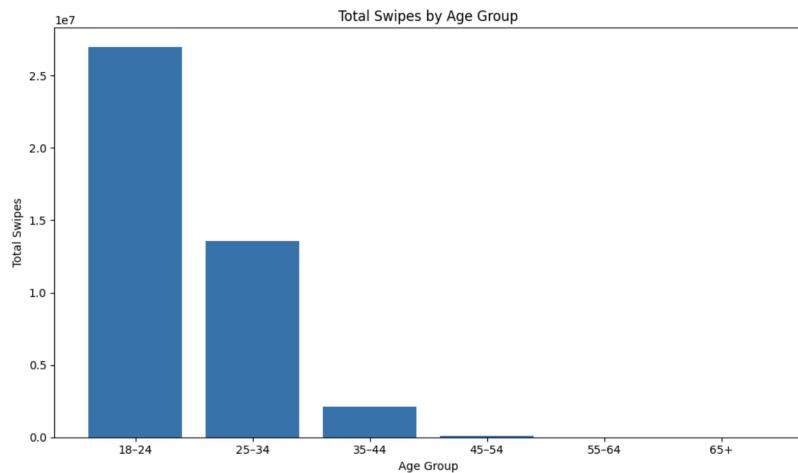


Figure 3. Total Swipes by Age Group.

Conversation length showed a very different pattern. The 18 to 24-year-olds had the shortest mean conversations, which suggests that although they engage with the app frequently, their interactions are brief and do not develop into extended conversations. The 25 to 34 group had the longest conversations of any age group. The 35 to 44 group also had longer conversations, although not as long as those aged 25 to 34. Users aged 45 to 54 held conversations that were longer than younger users, even though their overall activity remained low.

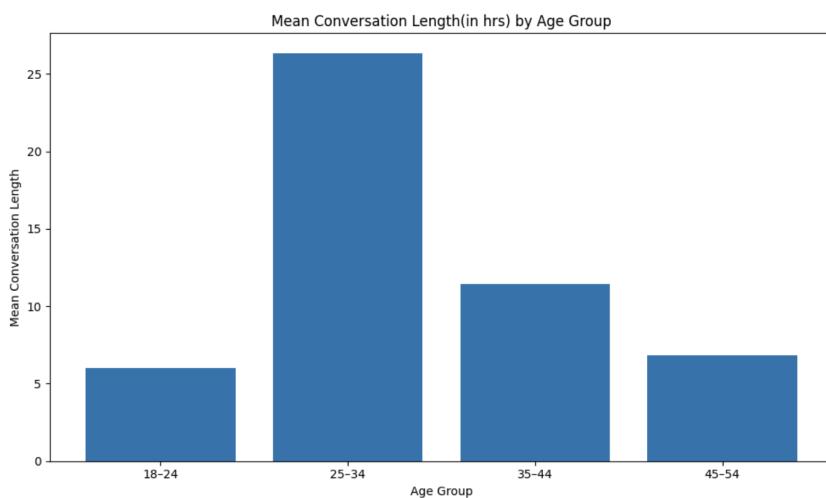


Figure 4. Median Conversation Length by Age Group.

To interpret these patterns: younger users drive most of the platform's volume through app opens and swipes, while older users contribute to the longest conversations. Users aged 25 to 34 are the only group that shows both moderate activity and strong conversation depth, making them more balanced overall. For the marketing team, the important point is that the highest potential impact comes from users who already interact often but do not maintain conversations. Younger users, especially those aged 18 to 24, would benefit the most from features or messaging that encourage longer and more meaningful conversations.

3.2 Sexual Orientation Patterns

Sexual orientation showed some of the strongest engagement differences in the entire dataset. Gay men had the highest average app opens, meaning they returned to the app more often than any other group. Straight users followed with steady engagement. Bisexual users showed a moderate level of activity, and lesbian users consistently had the lowest app opens.

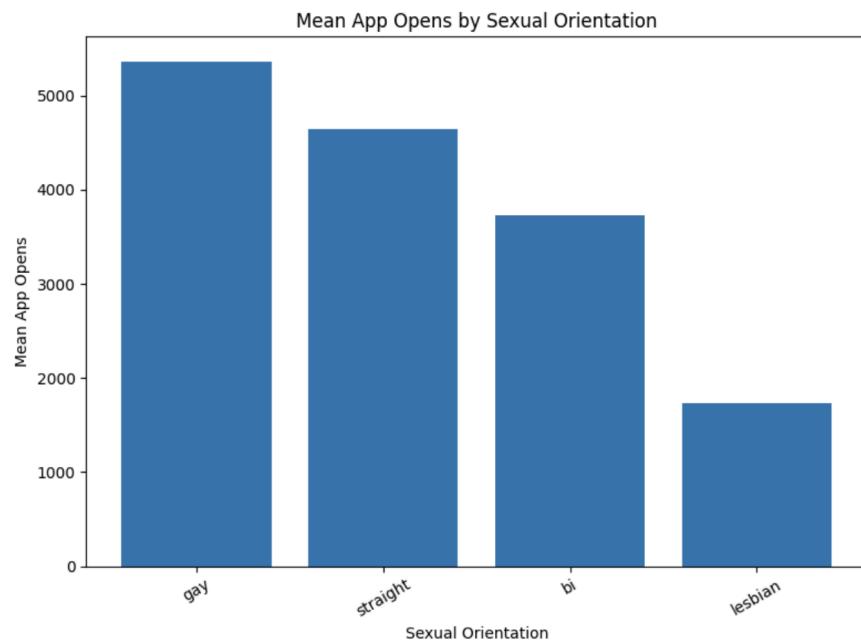


Figure 5. Median App Opens by Sexual Orientation.

However, conversation length did not follow the same pattern. In fact, it was almost the complete opposite. Straight users had the longest mean conversation length, significantly higher than the other groups. Bisexual and lesbian users had shorter conversations. Gay men had the shortest conversations overall, even though they are the ones who open the app more frequently.

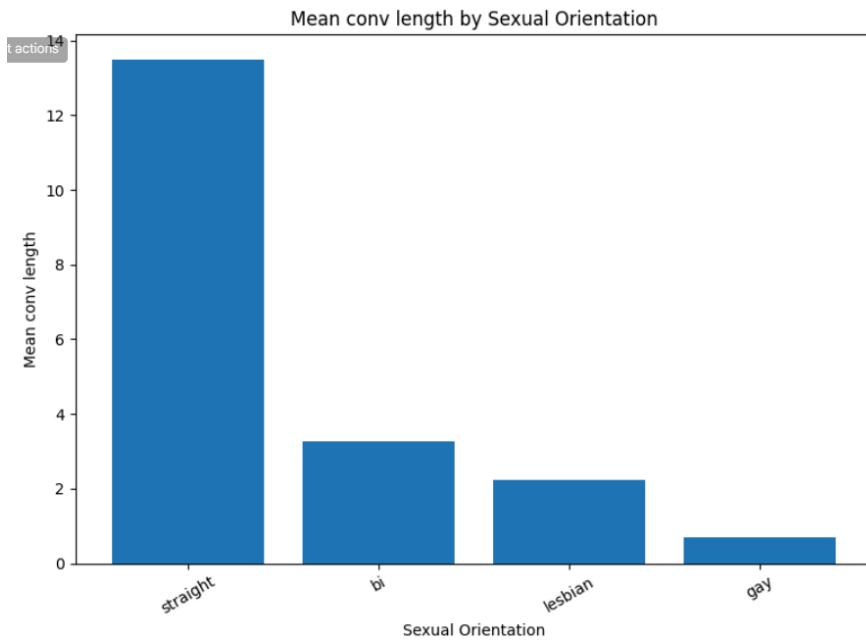


Figure 6. Median Conversation Length by Sexual Orientation.

Swiping activity matched the app open trends. Gay men had the highest mean total swipes, followed by straight individuals. Bisexual users had lower swiping activity, and lesbian users had the lowest of all groups.

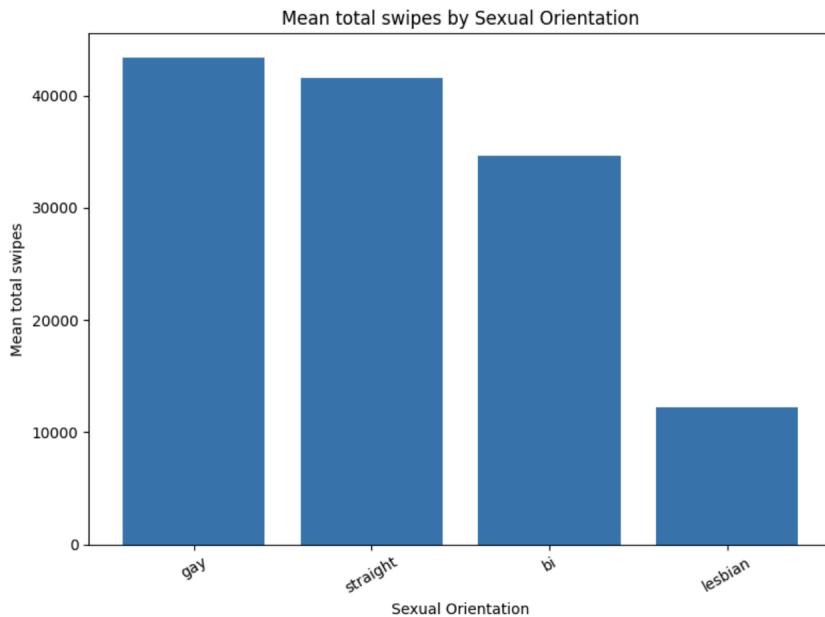


Figure 7. Median Total Swipes by Sexual Orientation.

Gay men and bisexual individuals stand out as a particularly important group for the marketing team. They are highly active on the app, opening it often and swiping at elevated rates, yet their

conversations tend to be very short. This pattern suggests that they are highly motivated users who may be encountering challenges when it comes to starting or sustaining meaningful interactions. Because they already enjoy the platform and engage frequently, they represent strong candidates for a targeted engagement campaign designed to help boost conversation quality and duration.

3.3 Orientation and Age Combined

Combining age and orientation revealed even more specific insights. Young gay men, especially those aged 18 to 24, showed the highest average app opens of any demographic group. Their engagement level surpasses that of straight men, bisexual users, and lesbian users in the same age range. Straight users showed relatively stable engagement across age groups, suggesting steady but not exceptional activity. Lesbian users had consistently low engagement regardless of age.

It is important to note that the bars representing straight users appear high in some age groups because the number of users in this category is much higher than the others in the dataset. This obviously will inflate their totals. As a result, their engagement should be interpreted with consideration of sample size rather than raw height in the visualization.

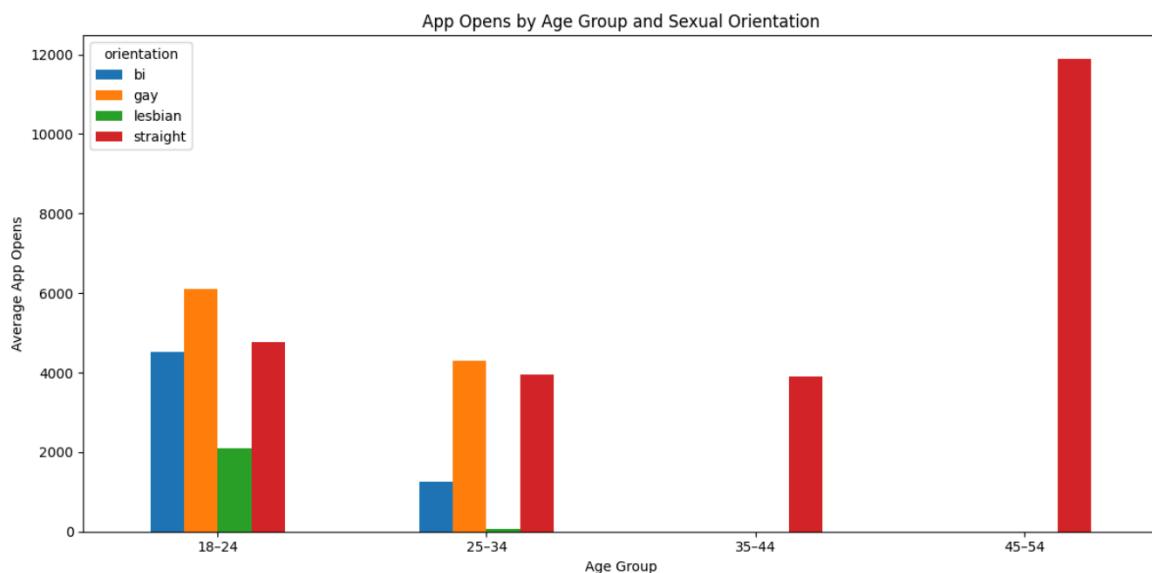


Figure 8. App Opens by Orientation and Age Group.

This means that young gay men form one of the most active niches on the platform. They open the app often, browse heavily, and swipe a lot, but do not maintain conversations. From a marketing perspective, this group has the clearest gap between interest and follow-through. This gap represents a major opportunity because improving conversation depth for this group would have a strong and immediate impact on overall engagement.

3.4 Education Levels Among Gay Men

The dataset showed that most gay men did not report having completed high school or college. A smaller portion reported having some level of formal education. While this likely reflects incomplete profile reporting rather than actual education levels, the pattern still matters for marketing.

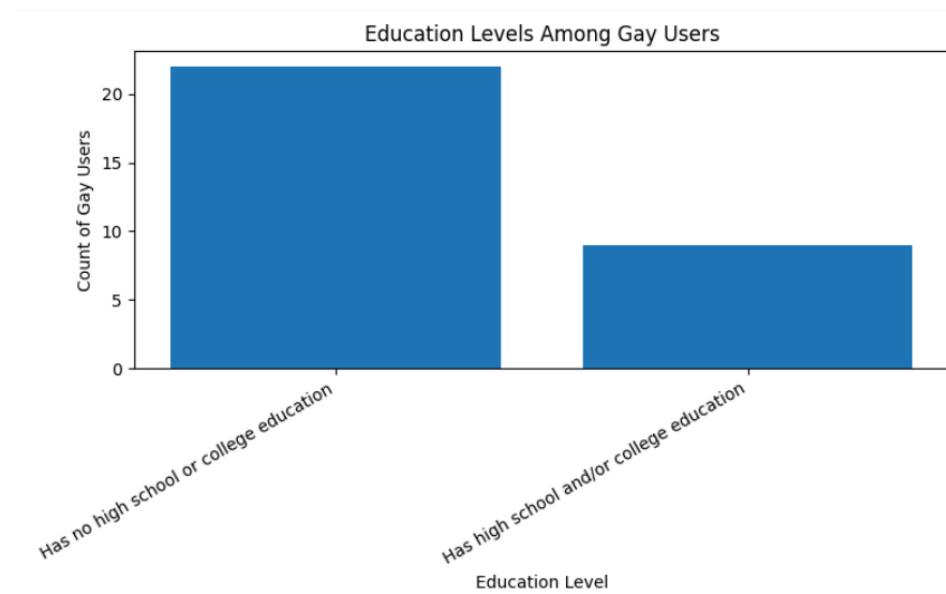


Figure 9. Education Levels Among Gay Men.

For this segment, campaigns should avoid academic language or complex instructions. A simple, clear, and casual tone is more likely to resonate with the audience. This does not imply that the users lack education, but simply reflects the profile data available and helps the marketing team tailor communication style appropriately.

3.5 Social Media Linkage and Conversation Length

The analysis of social media linkage showed a clear pattern in how different types of profile information relate to conversation length. Users who linked Spotify had the longest average median conversations, even when Instagram was not linked. Users who linked both platforms also had relatively long conversations, though slightly shorter than Spotify alone. In contrast, users who linked only Instagram had some of the shortest conversations, similar to users who linked nothing at all. This suggests that music-based profile information may be more effective than photos for helping matches find common ground and keep conversations going.

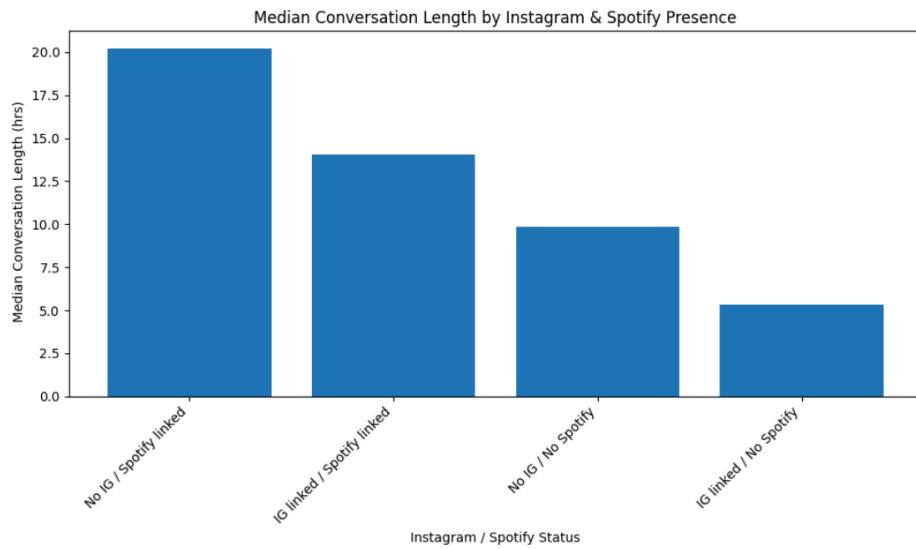


Figure 10. Median Conversation Length Based on Social Media Linkage.

For the marketing team, the main takeaway is that encouraging Spotify linkage is likely to increase conversation depth more reliably than focusing on Instagram. Spotify provides shared interests and talking points that help users start and sustain conversations. Instagram alone does not appear to create the same effect. Nudges that promote Spotify linking, highlight musical compatibility, or showcase how playlists can spark conversation would likely raise engagement across multiple demographic groups. Since account linkage is a behavior Tinder can directly influence, this finding presents a highly actionable opportunity for improving user engagement.

4. Interpretation of Findings

The engagement patterns point clearly to one group that stands out. Gay men between the ages of 18 and 35 are the most active users in terms of swiping and app opens. They return to the app often and interact with many profiles. The issue is that their conversations are short. Although some are opting out of dating apps for sports clubs, the LGBTQ+ community often “appreciates the safety, belonging and convenience that dating apps afford” (Dolan, 2025). Many gay individuals find in-person dating methods challenging as they are forced to navigate ongoing stigma and potential violence. Furthermore, nearly 50% of all respondents for a Forbes health survey “reported a long-term connection as their goal” (Prendergast, 2024). Therefore, the general audience would also likely positively respond to a campaign focusing on maintaining conversations. A marketing campaign can address this gap by promoting features that help users start and maintain conversations.

Younger straight users are also active, but already have longer conversations than gay men. Older users have longer conversations but low activity, so a campaign focused on them would not bring strong overall engagement growth.

The strong link between Spotify integration and longer conversations indicates that users with more detailed profiles tend to sustain interactions for a greater amount of time. This pattern suggests that shared interests, or even just the appearance of greater personal depth, may help spark and maintain conversations. The effect is consistent across demographics as conversation lengths increase noticeably when Spotify is linked. This trend implies that music-based identity cues play a meaningful role in shaping user engagement within these groups.

5. Practical Recommendations

Tinder should target gay men aged 18 to 35 in its next marketing campaign. This group already uses the app heavily, but does not maintain long conversations. Although there is a stereotype that gay men primarily use dating apps for short-term relationships, research shows that “gay men tended to describe a sense of collective pressure to conform to the sub-culture’s focus on hooking up” (Blair, 2020). Grindr, the most well-known dating app for gay men, reinforces this norm with its reputation for being exclusively for hook-ups. Men who “reported joining apps like Grindr to seek out romantic relationships... learned the norms of the app, and thus changed their language for more casual hook-ups” (Blair, 2020).

Tinder can differentiate itself from this stereotype and position the platform as a safer, more conversational, and more connection-oriented space for gay men seeking meaningful relationships. This is aligned with broader user preferences, since many dating app users report burnout resulting from repetitive swiping and “repetitive conversations while chatting with multiple matches” (Prendergast, 2024).

To strengthen engagement within the target demographic, the marketing team should emphasize features that make conversations easier to start and more meaningful. Tools such as conversation prompts, icebreakers, and shared interest tags can help shift user behavior from brief exchanges toward more intentional interactions. Messaging should emphasize that Tinder offers dynamic, personalized conversations rather than repetitive or surface-level chats.

Because the data shows that linking Spotify is associated with longer conversations, the campaign should encourage users to connect their profiles and showcase their music tastes. People naturally enjoy discussing their favorite artists, playlists, and concert experiences, and music often serves as an easy, authentic conversation starter. There is a strong opportunity for Tinder to deepen engagement through a direct partnership with Spotify. Joint initiatives could include curated “Match Mix” playlists or features that highlight shared listening habits to spark

shared interests between matches. Since music is a widely relatable topic, integrating Spotify more prominently into the user experience can help drive deeper, longer conversations across the platform.

6. Summary and Conclusions

This report analyzed how age, orientation, education, and profile linkage relate to app activity and conversation depth. Younger users, and especially young gay men, were the most active. Older users had longer conversations but much lower activity. Gay men had the highest app engagement but the shortest conversations. Spotify linkage also significantly increases conversation length.

Based on these patterns, gay men aged 18 to 35 offer the strongest opportunity for a marketing campaign because they already engage heavily with the app but have room for improvement in conversation depth. Increasing the length of their conversations can improve retention and overall platform engagement. Although the dataset has limitations, including size and representativeness, the trends were consistent and provide a strong direction for marketing strategy.

7. Bibliography

Avery Stone. (2024, April). *Best place to find dates: run clubs and pickleball teams?* The Cut. <https://www.thecut.com/article/dating-run-clubs-pickleball-sports.html> The Cut

Blair, K. L. (2020, November 29). *Are gay dating apps incompatible with finding love?* Psychology Today. <https://www.psychologytoday.com/us/blog/inclusive-insight/202011/are-gay-dating-apps-incompatible-finding-love> Psychology Today

Carley Prendergast. (2024). *Survey: 78% of Gen Z report dating app burnout – Forbes Health.* Forbes. <https://www.forbes.com/health/dating/dating-app-fatigue/> Forbes

Eric W. Dolan. (2025, November 4). *People use dating apps for more than just love or hookups, study finds.* PsyPost. <https://www.psypost.org/people-use-dating-apps-for-more-than-just-love-or-hookups-study-finds/> psypost.org+1

OpenAI. (2025, December 5). *ChatGPT* [Large language model].
<https://chatgpt.com/share/69337fef-6a88-800c-b92e-b56b2692fdaf>

8. Appendix

The boxplot below shows that the straight user group contains many extremely high-value outliers. These outliers raise the group average and make the straight bars appear inflated in earlier charts. The other orientation groups have fewer extreme values, so their averages stay lower. This figure supports the disclaimer that mean-based comparisons overstate straight user engagement.

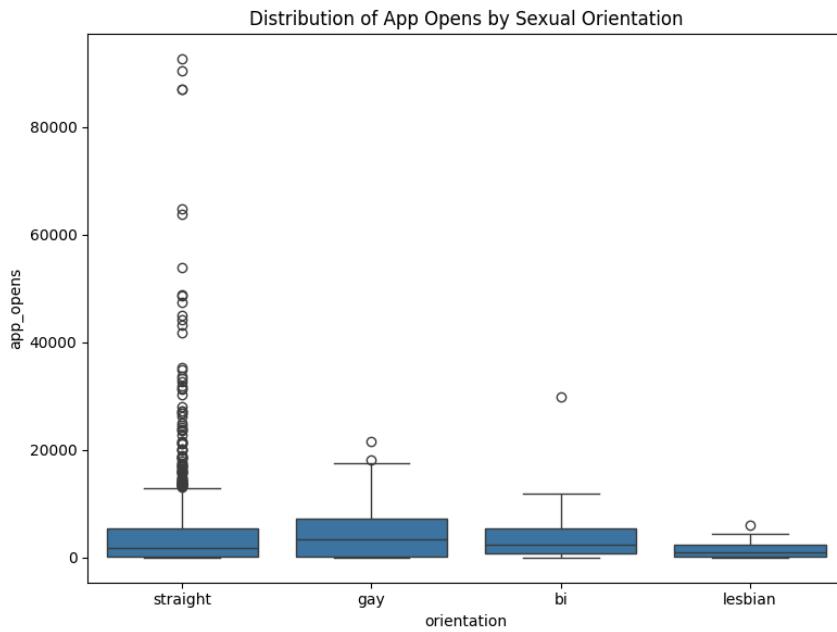


Figure A1. Distribution of App Opens by Sexual Orientation