Online Dating Survey

Ayoub El Hasnaoui, Naja Faysal, Jieping Mei

Table of contents

01 Introduction

Why online dating? Goals & Intended Audience?

02 The Report

Structure, & Special Features

03 The Dashboard

Structure & Special Features

04 Conclusion

Business Implications, Shortcomings & Learnings

01 Introduction

Why online dating?
Goals & Intended Audience?

Health + Wealth +

Love =

Happiness

About this study

- What is online dating?
- Why it is important?
- Who are the intended audience?
- What are our goals?

What is online dating?

- People use the internet to search for and interact with potential romantic or sexual partners.
- Companies that provide such services usually use a profile-based with various communications functionalists.
- Users create profiles and provide personal information as well as pictures of themselves
- Users can also view profiles of others, and decide on whether to initiate contact or not.
- It is a marketplace where people shop for potential lovers and try to sell themselves to desired ones.
- The companies use algorithms to match people.
- Companies try to monetize their services, by limiting the number of "swipes" a person can make per day and offering "profile boosts" in exchange for subscriptions to their premium paid versions.
- Once a match is created, then parties can exchange messages and agree to meet up for a date.

Why this study is important?

This study is important because as online dating becomes popular, we need to know its implications on society and we want to know the following:

- Is it helping people find partners?
- Is it increasing or decreasing the lifespan of a relationship?
- Is it improving or impairing the quality of life of adults?
- Is it causing a "Choice overload" (a cognitive impairment that makes it difficult for people to make decisions when there are too many options)?
- Could it be the reason why people are choosing to get married less than ever? For example, in 1960, 72% of adults in the US were married compared to 2015's 51%.
- Could it also be the reason why people are less committed to their partners/spouses?

Intended Audience

1. Online dating, as a business sector, where this research can hopefully inspire new improvements, features, and products that further enhance human connection.

2. Anyone who is curious about human psychology and behavior, could be also industries that benefit from this knowledge to generate ideas that connect brands with people like the marketing sector.

Objectives of this study

1. Shed light on the gender-based behavioral differences when it comes to dating apps in order for Bumble to be adaptive to their different needs and wants.

2. Discover the level of confidence in one's physical attractiveness among the young generation at universities, in order to create content that aids self-development, confidence-building, and growth.

3. Discover preferred body types among the new generation to help the algorithms perform better matching and not to assume preferences.

4. Discover the *popularity* and *ease of use* between the most popular social media and dating apps to see if some features could be borrowed to improve Bumble users' experience.

5. Discover the general sentiment of online dating among university students to see if dating apps in general and bumble in specific are losing or gaining popularity.

02

The Report

Structure, & Special
R-Markdown Features

Report Structure

We used the following structure:

1. Executive Summary
2. Introduction
3. Objectives
4. Data Collection
5. Data Processing (cleaning and exploration)
6. Data Analysis:
    a. Gender Discoveries
    b. Appearances and Confidence
    c. Favorite Body Types
    d. Apps Comparison
    e. General Sentiment
7. Dashboard
8. Conclusion
9. References

Special R-Markdown Features

Embedding Images

We enjoyed learning how to embed images and special formatting styles into our report.

New Packages

We've learned to use new packages/libraries like highcharter, html tools, viridis, png, patchwork, plotly..etc

Creating Tables

We've learned not only how to create tables in the R-Markdown formatting, but also to create tables of our data and customize them with colors and special formats.

Neat Code

We've come to appreciate the neatness of the code, making sure it can easily be read by an outside.

Documentation

We've managed to document the code to the best of our ability.

Experimentation

We've experimented with many new functions and ways of producing the analysis or the outcome. We've also found and applied a lot of new aesthetics that made our graphs look perfect.

Online Dating Survey - Report

Ayoub ElHasnaoui, Naja Faysal, Jieping Mei

12/2/2022

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Notice the formatting and the use of bullet points.

1. Executive Summary

As humans, we come back and again, regardless of our philosophical & spiritual background, to the realization that the three major areas governing one's life are Health, Wealth, and Love. Our aspirations, emotions, and desires all stem from one or the other, or all combined, if we remove any, life ceases to be perfect and fulfilling.

This study attempts to address modern-day Love. Most of us learn about Love from movies, where the protagonists almost always get involved romantically. Love that we know usually follows a shared emotional experience. This emotional experience could be a wild exotic adventure like fighting a super villain together, or capturing a serial killer…; or it could simply be a little hitchhiking trip or overcoming work challenges. We've never been told that love is attained by checking profile photos, swiping right, getting matched by computer algorithms, and thinking about who should pay the bill on the first date. Yet, thousands if not millions of people around the world are finding love on these apps.

We wanted to know:

- What is the current general sentiment on dating app adoption? Do people enjoy them and find them useful?
- What do the different genders think and how do they behave within the online dating context?
- Are their preferred body types that determine physical attractiveness?
- What are the differences between the apps most commonly used nowadays?
- What affects one's self-confidence in physical attractiveness?

All of the above questions have social and business implications our study hopes to address. So, we conducted a survey and asked CSUSB students to complete it. The students loved responding to the survey questions, they find it entertaining and interesting. We received comments like "I wish we have more surveys like that" and "very.. very interesting survey". This comes to show that young adults are struggling to navigate such matters, and genders are eager to understand one another, thus we wanted to bridge these gaps by making the findings of this study public.

In addition to the interesting insights we discovered throughout this study (ex: there are more bisexual women than bisexual men, a lot of single women don't want to be in a relationship, LGBTQ have the highest self-confidence, and social media is equally used for dating as dating apps), the study also found essential business implications for "Bumble" or any dating app seeking to improve its service (ex: the negative sentiment about swiping, and the importance of transforming dating apps roles from merely matching people to a new category of social media that

- Could it be the reason why people are choosing to get married less than ever? For example, in 1960, 72% of adults in the US were married compared to 2015's 51%.
- Could it also be the reason why people are less committed to their partners/spouses?

2.5 Intended Audience

- Online dating, as a business sector, where this research can hopefully inspire new improvements, features, and products that further enhance human connection.
- Anyone who is curious about human psychology and behavior, could be also industries that benefit from this knowledge to generate ideas that connect brands with people like the marketing sector.

2.6 Business Overview

Bumble is one of many online dating apps that are very popular lately. The company which was founded by a woman is known for supporting, advocating, and empowering women to make the first move. Bumble uses the act of swiping right/left to match with others. The main difference between Bumble and other dating apps is that in a heterosexual pairing, the woman will need to make the first move and send a message to the man.

Bumble is using this feature to avoid the overwhelming number of unwanted messages women generally receive on dating apps, and keep them in control. Bumble also supports all sexual orientations, genders, and other self-identification. Bumble is redefining what an online dating app should be and is believed to be a movement rather than an app. According to Bumble.com:

> "Bumble is more than an app, it's a movement. We encourage integrity, kindness, equality, confidence, and respect during all stages of any relationship - whether online or offline. Bumble is where people go to learn how to establish and maintain healthier connections"

Notice the quote format.

2.7 The Business Model

Bumble uses a website and a mobile application as platforms to allow users to match with each other based on what they are looking for. Bumble offers a variety of options for users if they want to date through `Bumble date`, if they want to socialize through `Bumble BFF`, or if they want to simply network for business purposes through `Bumble Bizz`. In either of these modes, Bumble uses the swipe right/left activity to match people within the same area or those that have the same interest, and as mentioned above, the only difference from other apps is that Bumble makes women responsible for making the first move. Members are able to use basic services for free, but for additional features such as `Beeline`, `Backtrack` and `SuperSwipe` users will need to pay a subscription fee, and that's how Bumble generates money.

Bumble is using what is called a ***Freemium Business Model***, where the company is offering basic services for free, and charges for premium services. Users can create their profile for free, as long as they are 18 years old or older. The main advantage of this business model is that it creates the network effect, where the free basic service attracts members, and those members will bring other members to the app.

To get perspective on the size of the business, since its launch, Bumble has 75+ million users across 150 countries. In 2018, Bumble generated $162 million in revenues. (Ref: https://shakuro.com/blog/how-much-does-an-app-like-bumble-cost)

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2.8 Bumble Challenges

The constant risk for dating apps is to grow out of trend. The market witnessed the rise and fall of many dating services companies. Here is when these companies started:

Year	Company
1995	Match.com
2000	eHarmony
2003	Myspace and Plenty of Fish
2004	Facebook and OkCupid
2007	Zoosk
2012	Tinder & Hinge
2014	Bumble

Notice the table format.

Therefore, Bumble must remain vigilant and watch the pulse of its user base. Understanding their “needs”, “wants”, preferences, attitudes, and behaviors, as well as listening to what the online dating users say and taking action to improve. Oftentimes, as companies grow fast and large, they start to lack the speed and agility required to remain competitive and to be able to bend and not break.

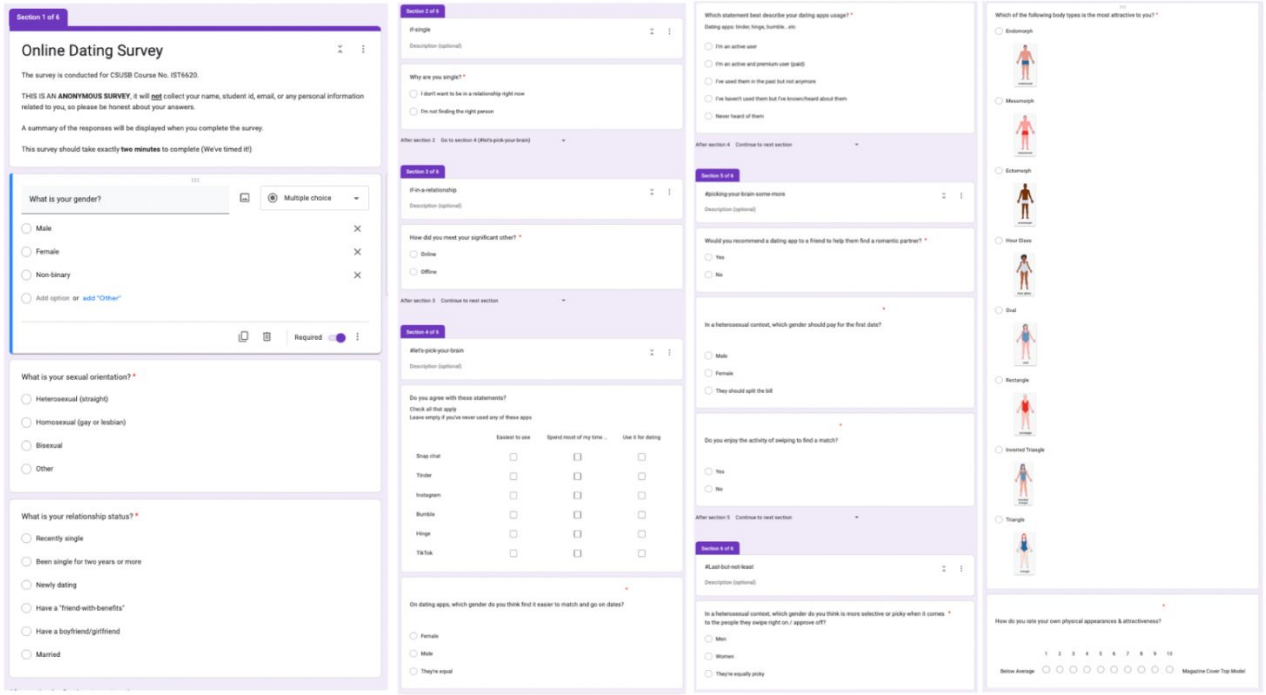
3. Objectives

The objectives of this project are to:

- Shed light on the gender-based behavioral differences when it comes to dating apps in order for Bumble to be adaptive to their different needs and wants.
- Discover the level of confidence in one’s physical attractiveness among the young generation at universities, in order to create content that aids self-development, confidence-building, and growth.
- Discover preferred body types among the new generation to help the algorithms perform better matching and not to assume preferences.
- Discover the *popularity* and *ease of use* between the most popular social media and dating apps to see if some features could be borrowed to improve Bumble users’ experience.
- Discover the general sentiment of online dating among university students to see if dating apps in general and bumble in specific are losing or gaining popularity.

4. Data Collection

We built a survey with a list of questions about Online Dating and collected around 250 responses mostly from CSUSB students, we did our best to reach a variety of people from different ethnicity, gender, age group, sexual orientation…etc



Notice the image embedding.

We reached students by sending them emails, posting the survey link on group chats, printing the survey QR code on small papers (as displayed below), and distributing them randomly to all students walking by or sitting in the cafeteria. Here is the survey link that not only shows the reader the questions but also offers basic summaries of the data once submitted. (ref: https://forms.gle/RKXZ6ZkKL9wtQfTZ8)

```
## 2           1      high
## 3           0      high
## 4           1       low
## 5           0       low
## 6           1      high
```

5.2 Data Exploration

5.2.1 Summaries of the Data Set

This is a table that contains some values from the dataset:

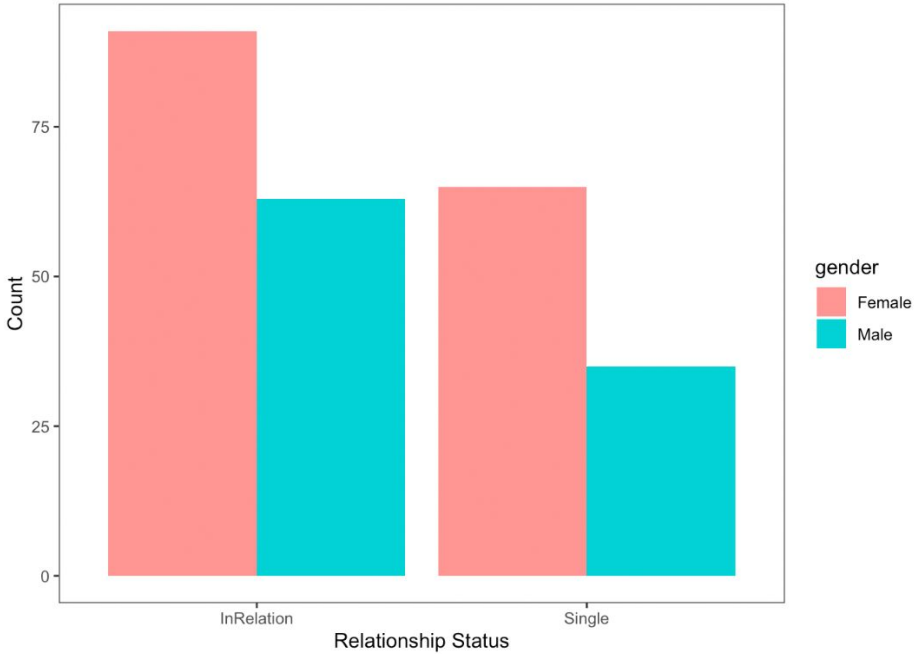
Totals	Values
Total Responses	255
Total Males	98
Males Ratio	38%
Total Females	156
Female Ratio	61%
Total LGBTQ	59
LGBTQ Ratio	23%
Total Straight	196
Straight Ratio	77%

Notice the table aesthetics.

5.2.2 Gender Distribution

23% of our survey respondents are LGBTQ, what's interesting is that there are much more bisexual females than there are bisexual males.

5.2.4 Relationship Status

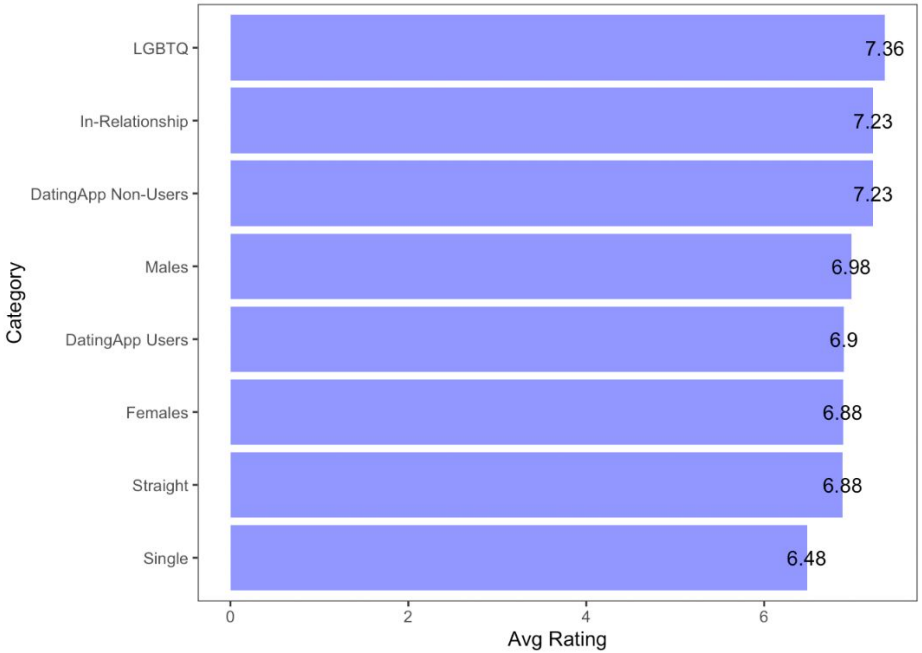


Notice the how clean the graph is (no grey background, no gridlines, offset colors..etc).

61% of survey respondents are "In a relationship" vs 39% are "Single", this observation is aligned with the "Romance in America" research numbers where 68% of all adult Americans have been married or in a committed relationships, 26% don't want to be in a relationship, and 7% actively looking for romantic partners. (ref: https://www.pewresearch.org/internet/2006/02/13/romance-in-america/#:~:text=47%25%20of%20all%20adult%20Americans,looking%20for%20a%20romantic%20partner.)

5.2.5 Dating Apps Usage

6.2.2 Self-rating Averages Comparison

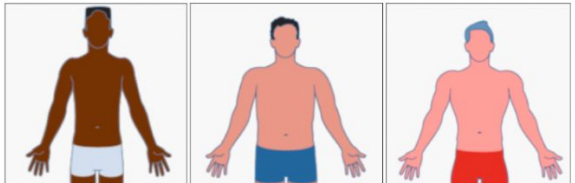


Notice the numeric labels on each bar.

The average self rating of LGBTQ respondents is the highest (7.36/10), followed by those who are in a relationship (7.23/10) and dating app non users (7.23/10), where the lowest rating were for Single respondents (6.48/10).

6.3 Favorite Body Types

6.3.1 Which of the following body types straight women find most attractive?



attractiveness to the opposite gender. This is mainly because failure to find a match makes people question their self-worth. This is also why people who are in a relationship rated themselves higher than those who are single. Relationships validate someone's attractiveness. So what does this mean to the dating apps industry? We believe that dating apps' role has to expand to more than just connecting people and should play a role in self-assurance, dating education, and spreading positive self-image.

- Despite the recent body positivity movement taking place in the western world, our survey data confirms that men who are fit with wide shoulders and muscular bodies are more attractive to women than overweight or skinny men. On the other hand, men appreciate curvy and fit women and not over weight or skinny ones. Implications of this information on dating apps will have to do with the matching algorithms and the ability of the apps to detect body types from the photos someone put on their profiles or making it mandatory for people to display a full body photo or indicate their body type as it plays a major role in attraction.
- By comparing dating apps to social media, dating app companies could learn a great deal from the leading social media apps. Snapchat is the easiest to use according to our respondents who spent most of their time on Instagram & TikTok. Dating apps could use this information to make their apps easier to use by mimicking Snapchat for example and making them more addictive by mimicking Instagram and TikTok. This doesn't necessarily be a bad thing, as we may embed a lot of dating coaching content within dating apps and make them easy, addictive and beneficial to society.
- Finally, the general sentiment toward dating apps isn't great, and there is great room for improvement to make these apps adopted and appreciated by the masses just like social media has been adopted. Dating app companies need to continually listen to the customers and always find ways to manage between profitability and delivering actual value to their customers by connecting them with the right matches as well as coaching them to become better lovers.

9. References

Notice the citations done using Zotero software.

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- Winter—1997—Teens and Technology.pdf. (n.d.).

03

Dashboard

Structure & Special Features

Dashboard Structure

We used the following structure:

1. Overview
2. Gender Discoveries
3. Appearances and Confidence
4. Body Types
5. Apps Comparison
6. Sentiment
7. Ref: Cleaned Data

Special Features

Interactivity

All our graphs are interactive, thanks to the plotly package.

Deployed Online

We've found a way to publish our dashboard on the web thanks to the shinyapp.io

Features

We've utilized many flexdashboard features like the tabs (.tabset), clean graphs using themes.

Embedding Images

Similar to the report, we've found a way to embed images that work very well with the graphs.

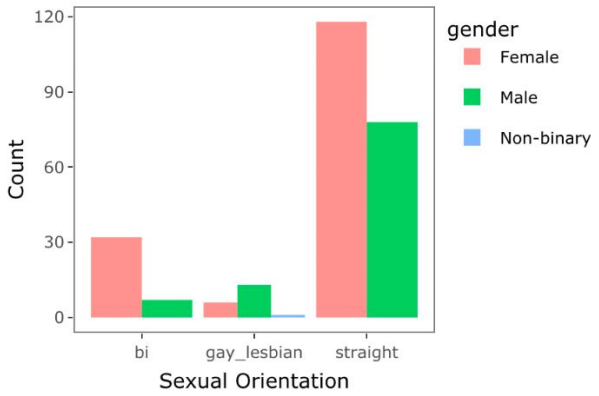
255
Total No. of Respondents

61%
Female-Male Ratio

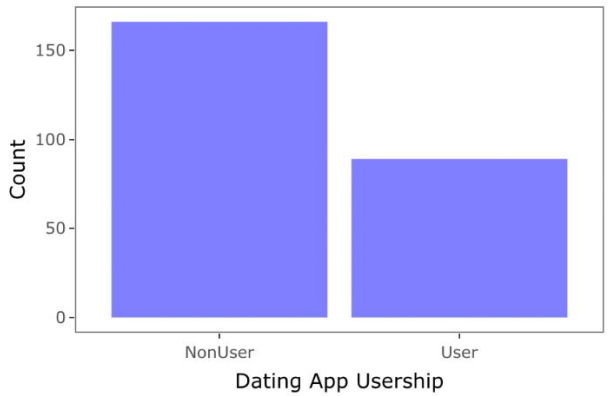
23%
LGBTQ-Straight Ratio

Notice the icons in the value boxes.

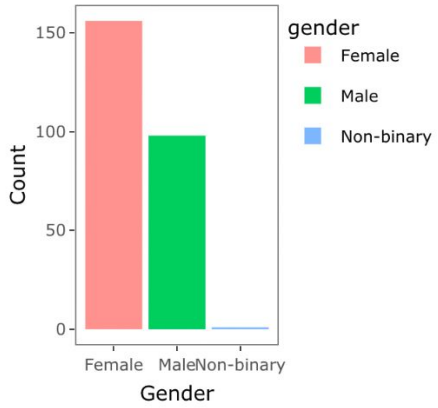
Sexual Orientation



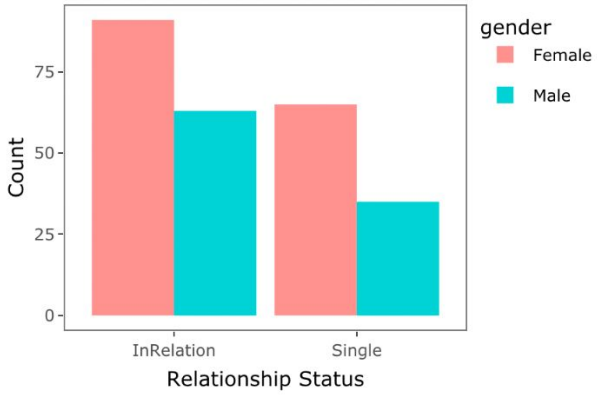
Dating App Usage



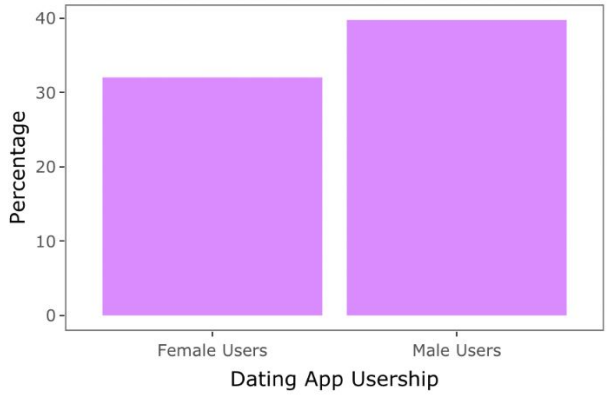
Gender Distribution



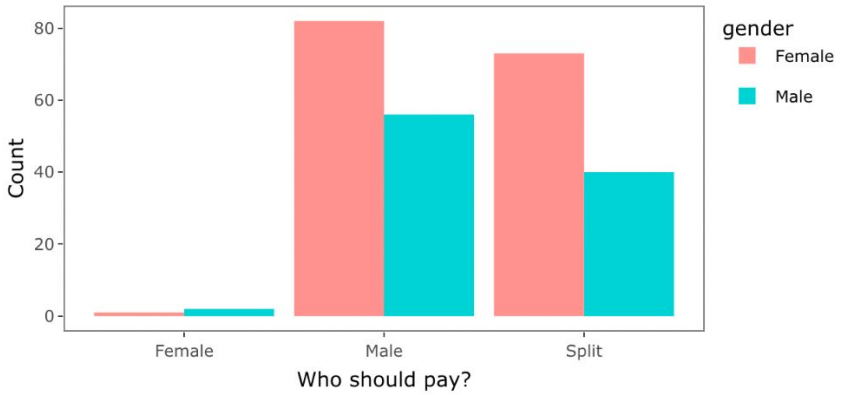
Relationship Status



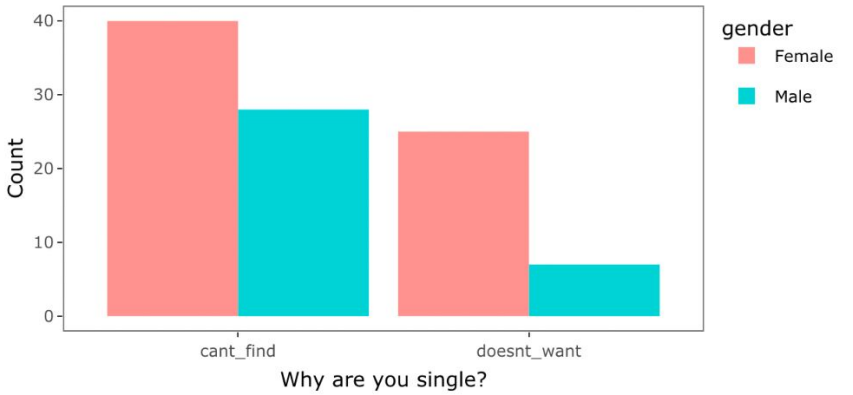
Dating App Usership Per Gender



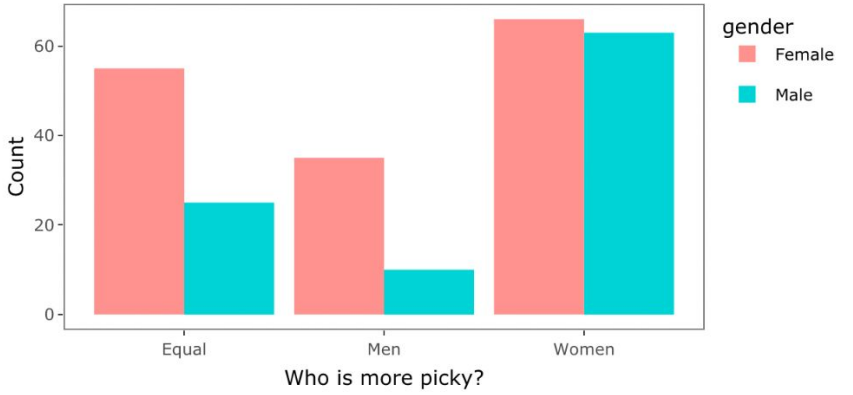
Who should pay for the first date?



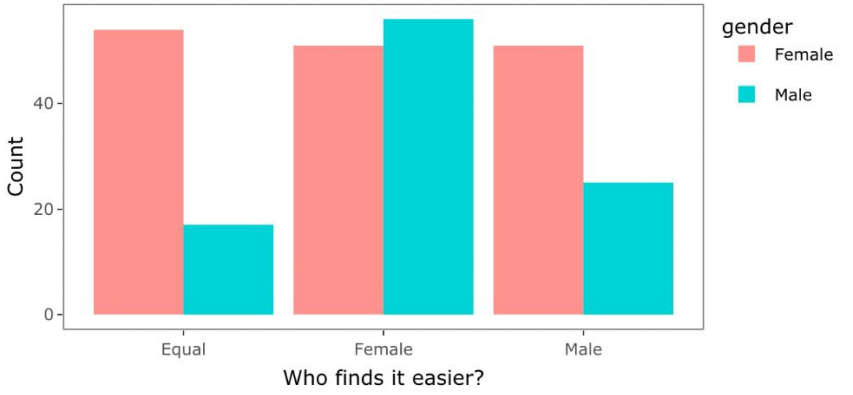
Who doesn't want to be in a relationship?



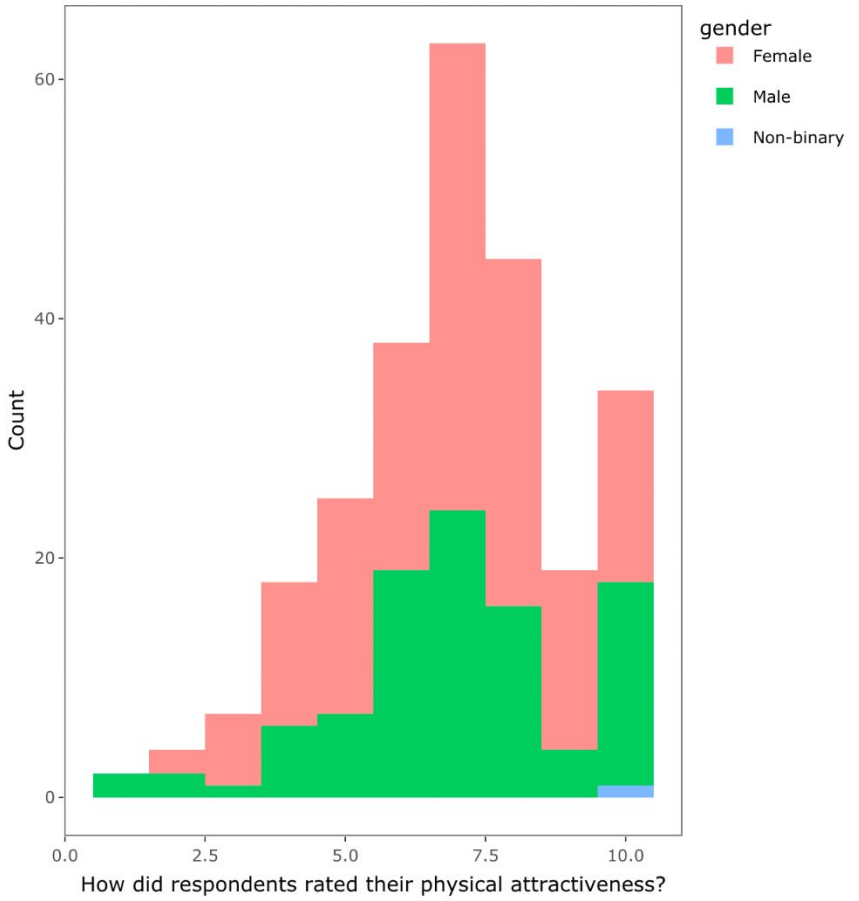
Who is more picky while swiping?



Who finds it easier to match and go on dates?



How did respondents rate themselves? | Averages Comparison?



LGBTQ Average

Straight Average

In-relationship Average

Single Average

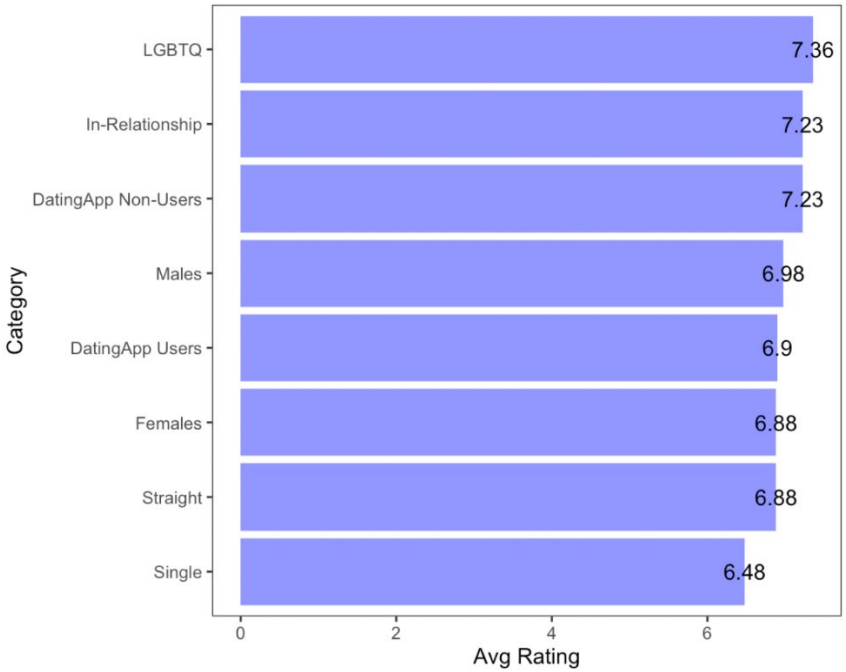
Male Average

Female Average

Dating App Users Average

Dating App Non-Users Average

How did respondents rate themselves? | Averages Comparison?



LGBTQ Average

Straight Average

In-relationship Average

Single Average

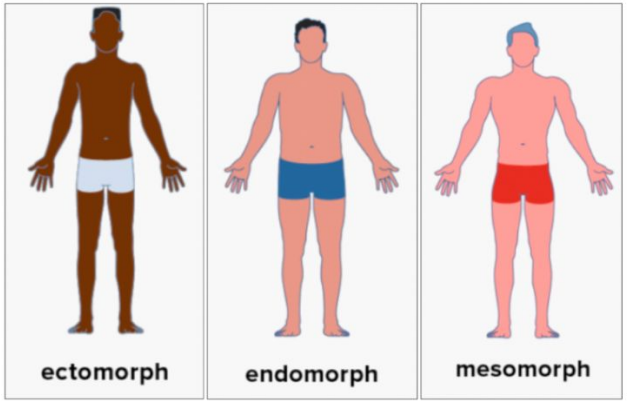
Male Average

Female Average

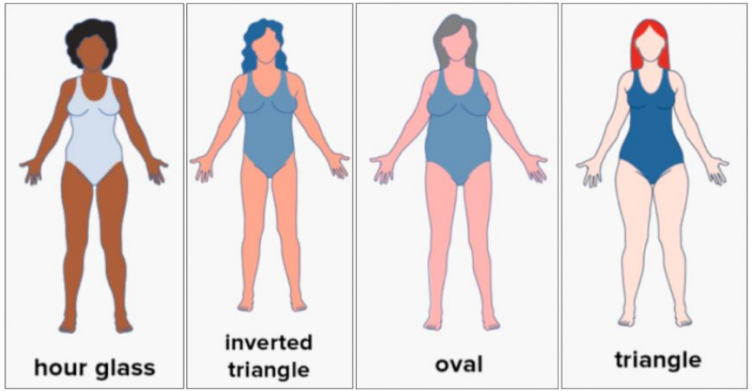
Dating App Users Average

Dating App Non-Users Average

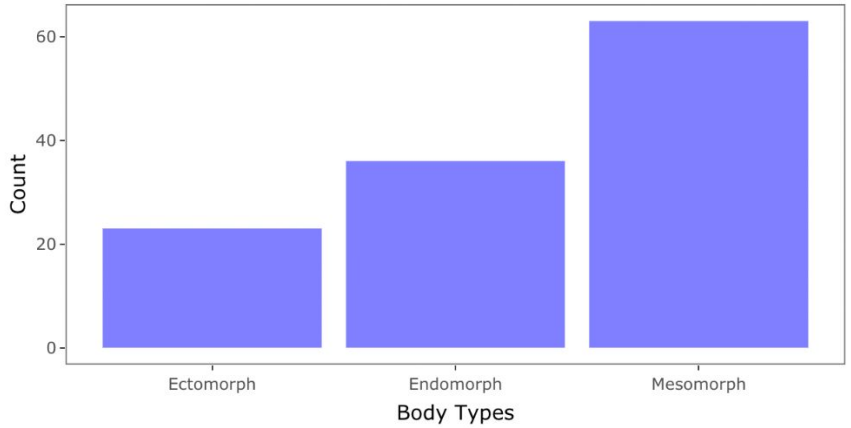
Which of the following body types straight women find most attractive?

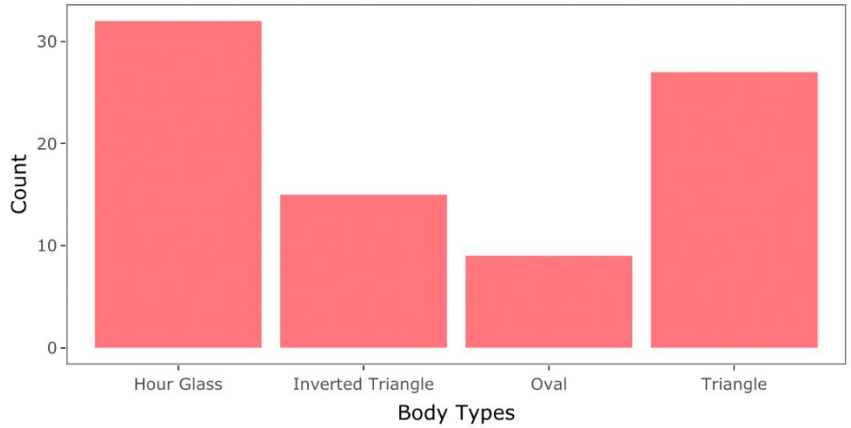


Which of the following body types straight men find most attractive?**

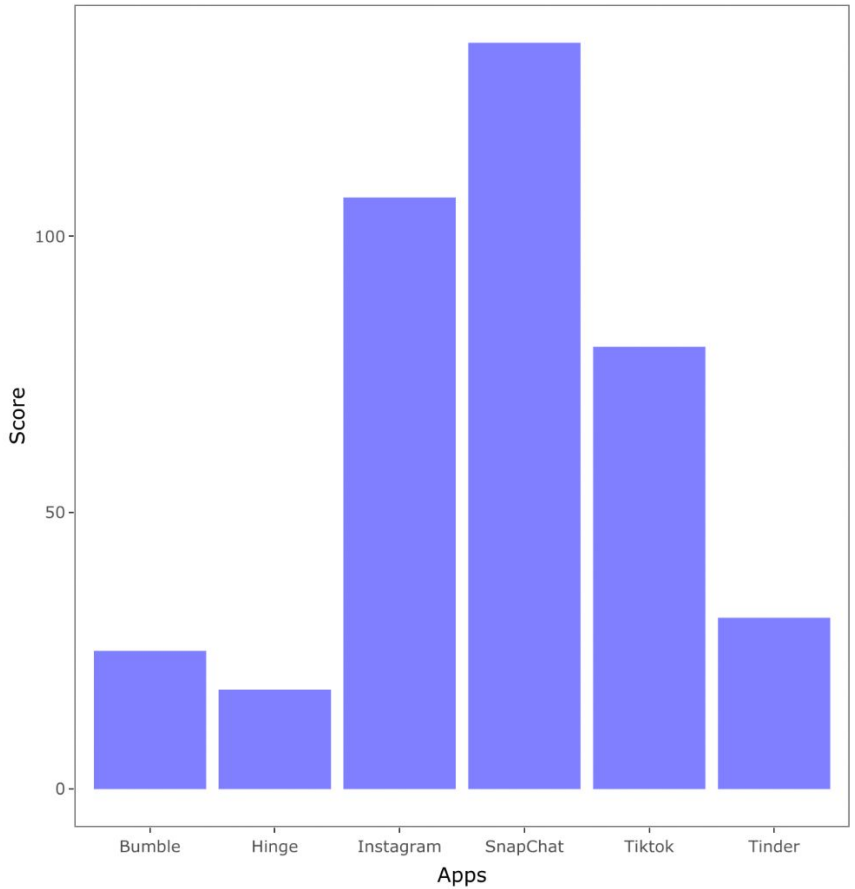


Notice how the images correspond with the bars.

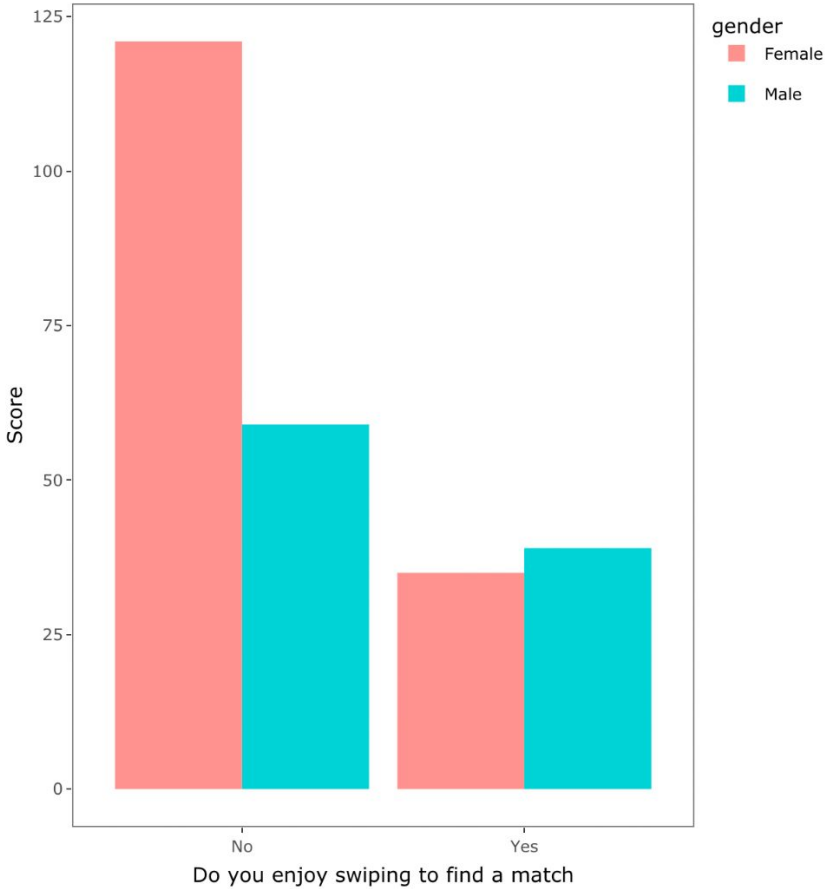




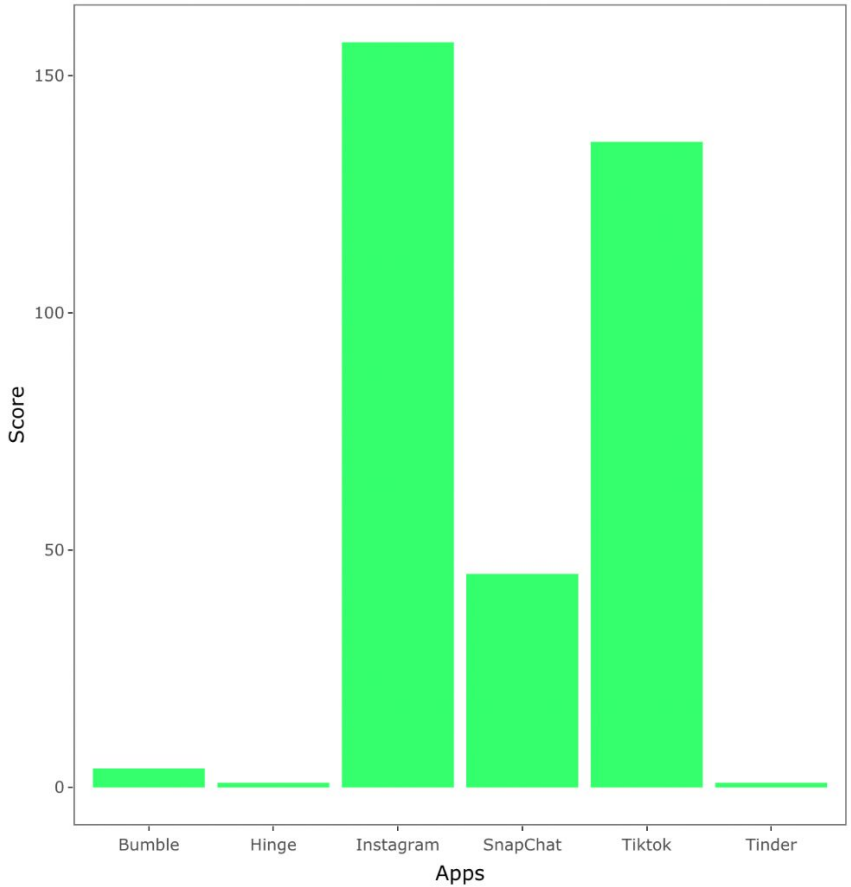
Easiest to use | Most time spent | Most popular dating app



Who likes swiping more?



Easiest to use | Most time spent | Most popular dating app



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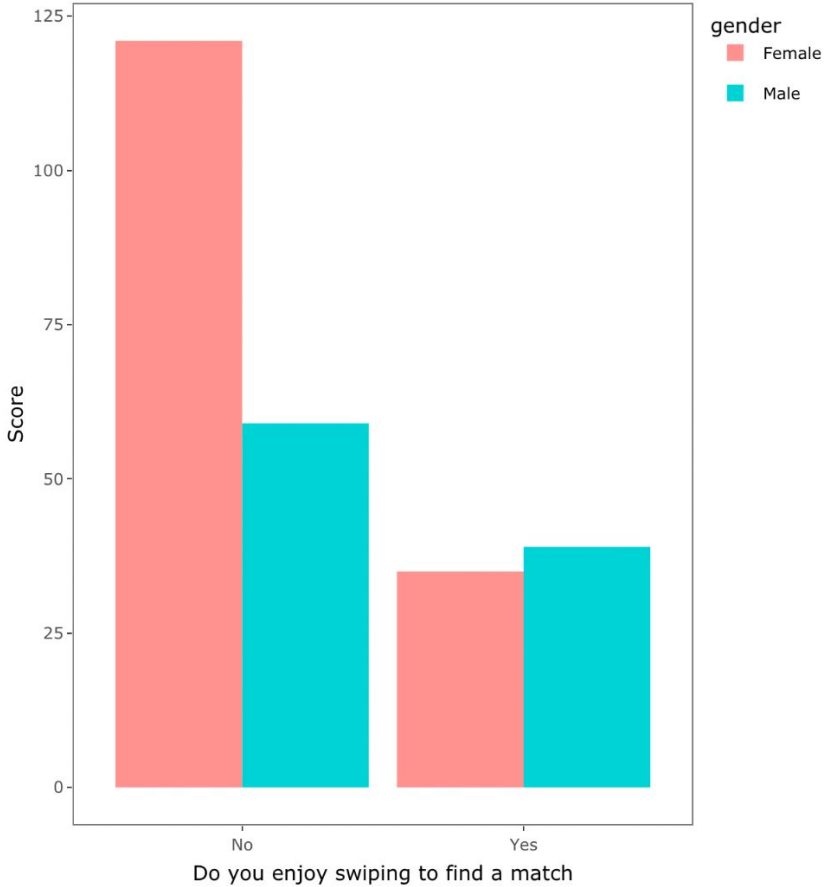
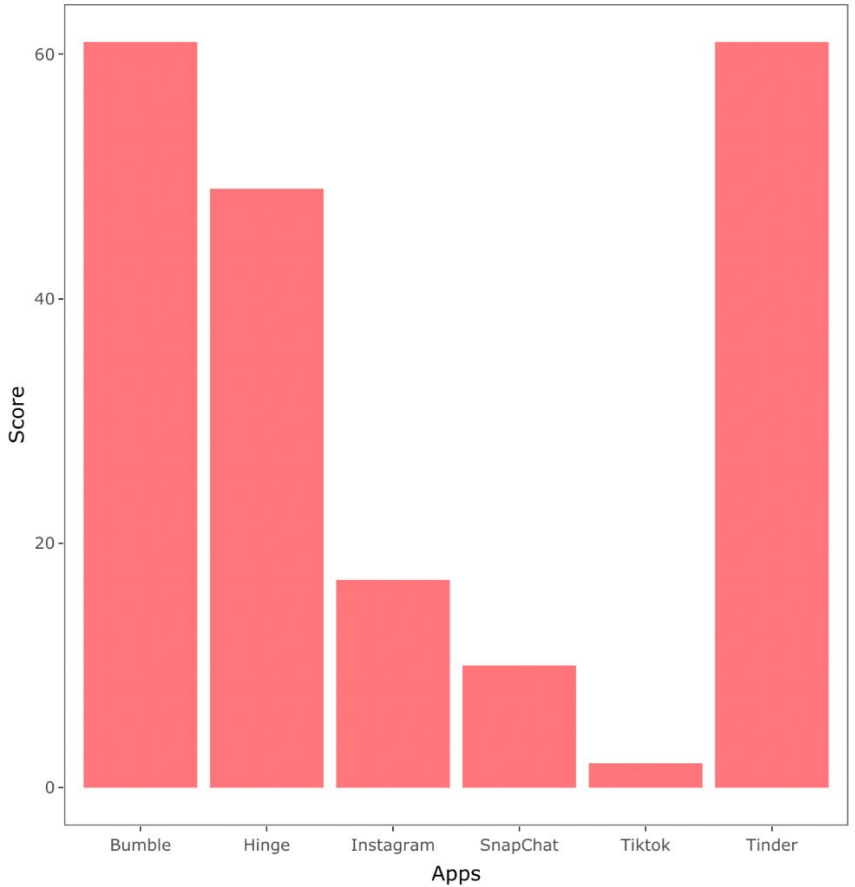
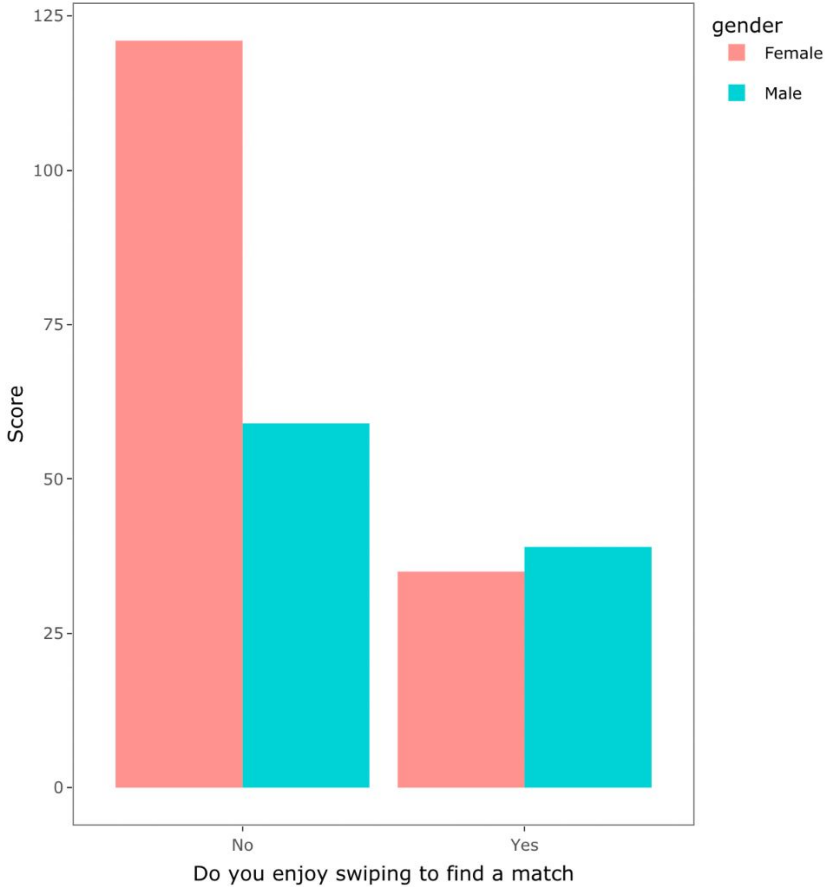


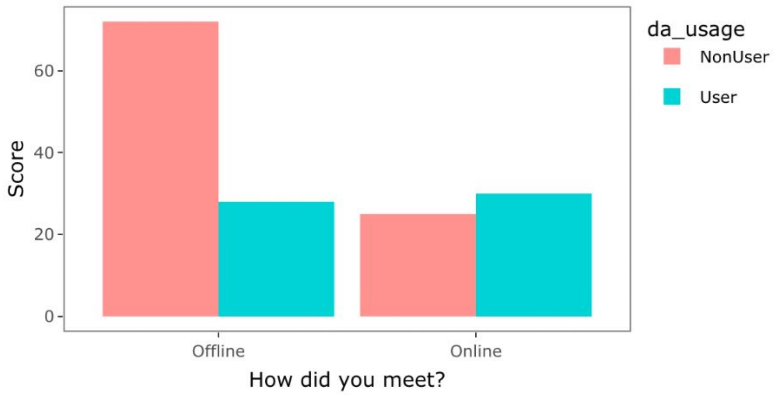
Easiest to use | Most time spent | Most popular dating app



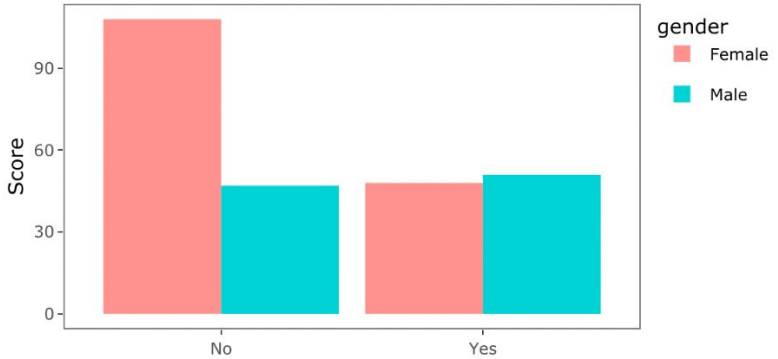
Who likes swiping more?



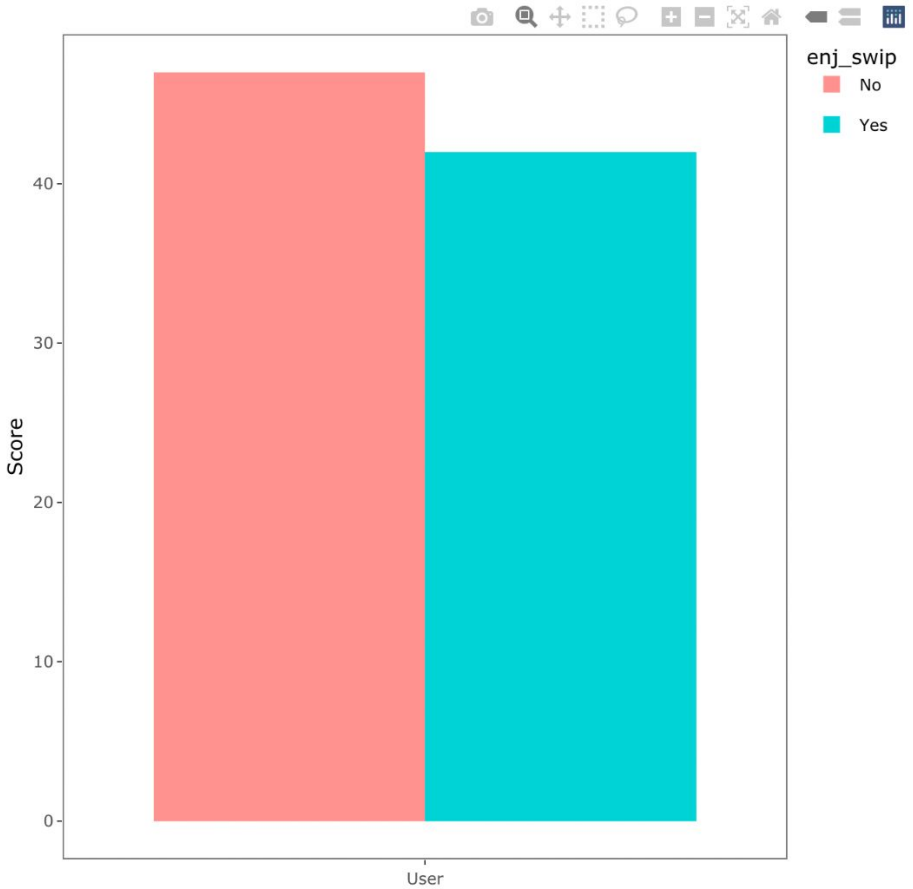
From those in a relationship, how many met online vs offline?



How many recommend dating apps to a friend?



Do dating app users enjoy swiping to find a match?



1/3

Show 10 entries Search:

	enj_swip	gender	orientation	rel_status	da_usage	y_single	rec_friend	met_online	dates	pay	picky	body_types
1	No	Female	straight	InRelation	NonUser		No	Offline	Equal	Split	Equal	Mesomorph
2	No	Male	bi	InRelation	User		Yes	Online	Female	Split	Women	Hour Glass

Showing 1 to 10 of 255 entries

Previous 1 2 3 4 5 … 26 Next

2/3

Show 10 entries Search:

	rate_yourself	snap_easy	snap_time	snap_dating	insta_easy	insta_time	insta_dating	tik_easy	tik_time	tik_dating	tin_easy	tin_
1	7	1	0	0	0	0	0	1	0	0	0	
2	7	1	0	1	1	1	1	1	1	0	1	

Showing 1 to 10 of 255 entries

Previous 1 2 3 4 5 … 26 Next

3/3

Show 10 entries Search:

	tin_dating	hin_easy	hin_time	hin_dating	bum_easy	bum_time	bum_dating	con_level
1	0	0	0	0	0	0	0	high
2	1	0	0	1	0	0	1	high

Showing 1 to 10 of 255 entries

Previous 1 2 3 4 5 … 26 Next

04

Conclusion

Shortcomings & Learnings

Business Implications to Bumble

1. Continue to monetize by targeting men
2. Add prompts on people's profile regarding their beliefs on who should pay for first dates
3. Add educational content to:
    a. Coach people how to obtain and maintain love
    b. Tackle the confidence problem
4. Find a better way to match instead of "swiping"
5. Make body type prompts as well as full body pictures on profile mandatory to help algorithms match people based on their preferences.
6. Learn ease of use from snapchat and redesign dating apps accordingly.
7. Learn how to make apps sticky from instagram and tiktok and redesign dating apps accordingly
8. Balance profitability with delivering actual value cos many people don't believe dating apps deliver on their promises.

Shortcomings & Learning

Logical Sequence	✓	Need to collect more data	✗
Missed some imp. questions	✗	Pushing for perfection	✓
Comfortable with coding	✓	Bug fixing is time consuming	✓

Thanks

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