

Assignment 4
Heuristic Evaluation



IMD3001/PSY4800

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1.



Tinder is a social application that matches you with other users in your area. While Tinder can be used to grow your social network or meet new friends, it is most commonly used for dating. Every user has a profile with mandatory information (photos, age, name), and optional information (short description, favourite song, location, school, etc.). Once a profile is created, other users' profiles are then displayed one by one. If the profile is interesting to them, they can make a swiping motion to the right to “like” that person. Swiping to the left means “not interested” or “dislike”. If two users “like” each other, they will then gain access to a private chat with one another, where they can chat and exchange details if they wish. Each user is only allowed to “like” a limited number of profiles per day.



Another social app with similar features to Tinder is Bumble, which markets “empowered connections”. Like Tinder, users create a profile with mandatory and optional information, swipe left and right on other people's profiles, and then interact with any matches. Both Tinder and Bumble have implemented monetization in their apps, where users can pay a fee to do things like have their profile featured, get unlimited “likes”, and more.

2.

Both these apps share many of the same usability goals, as stated in previous usability reports, the main shared usability goals are as follows. Usefulness, both apps are doing what they are intended of doing and satisfy the goal of connecting users. Effectiveness, both of these apps allow for people to meet in a fast and entertaining fashion; however, the effectiveness of actually making lasting connections is completely isolated to specific individuals. Likeability, these apps share likeability; however, Tinder does carry a social stigma associated with ‘hook-up culture’ that can damage its reputation. Learnability, the two apps have quick tutorials that aim to adapt new users to the platform as quickly as possible. Efficiency both apps share subjective efficiency rates that are dependant on each users interaction with the application. Low Error Rate, the two apps are prone to glitches and bugs;

however, the majority of the time they do their jobs well. Satisfaction, this is dependant on the user. Some users may have high satisfaction while others may find the app poor.

3.

The evaluation objective is to identify usability problems in the user interface (UI) design in order to fix the current issues surrounding them. By using a standardized testing system such as the heuristic method and following Nielsen and Molich's 10 User Interface Design Heuristics it better allows tester to identify problem and compare issues of similar nature. It is an important objective to identify these errors/issues using a simple to understand method and as well as a cheap and efficient method.

4.

- Visibility of System Status
- Match Between System and the Real World
- User Control and Freedom
- Consistency and Standards
- Error Prevention
- Recognition Rather than Recall
- Flexibility and Efficiency of Use
- Aesthetic and Minimalist Design
- Help Users Recognize, Diagnose, and Recover from Errors
- Help and Documentation

5.

Refer to Appendix A for individual heuristic evaluations conducted by each member.



Summary of Common Findings

Evaluated UI Component/Task	Problem Found	Heuristic	Severity (1-5)	Preliminary Recommendation
Card stack interaction	Users have to remember which direction to swipe	Recognition Rather Than Recall	4	Reintroduce swiping effects for the first few uses
Card stack	Users cannot recover from accidental	Help Users Recognize,	4	Introduce these features to

interaction	swipes without paying	Diagnose, and Recover from Errors		the free model
Settings page	Users cannot narrow profiles based on preferences	User Control and Freedom	4	Add methods to narrow card stack down to more compatible users
Card stack iconography	There are too many icons on the bottom of the screen for users to remember their purposes	Aesthetic and Minimalist Design/Recognition Rather Than Recall	3	Reintroduce icon descriptions for the first few uses
Settings page	Cannot change age when logged in with Facebook	User Control and Freedom	1	Allow users to change their age
Advertisements	Ads do not have exit buttons	User Control and Freedom	2	Give ads an exit button
Card stack interaction	No way to tell how many profiles are in the card stack	Visibility of System Status	2	Show number of users in your stack
Card stack interaction	No way to confirm major decisions like Super-Likes	Error Prevention	4	Add confirmation pop-up



Evaluated UI Component/Task	Problem Found	Heuristic	Severity (1-5)	Preliminary Recommendation
Settings page	User must log in with Facebook	User Control and Freedom	3	Allow multiple methods of registration options
Platform interface	On Bumble Bff, you can only match with people of the same sex	User Control and Freedom	3	Allow users to set how they want to limit their options
Card stack interaction	Users have to remember which direction to swipe	Recognition Rather Than Recall	4	Reintroduce swiping effects for the first few uses
Card stack interaction	Shaking to undo actions feels unnatural	Flexibility and Efficiency of Use	3	Replace this feature with a backtrack button
Support	No simple way to get support	Help Users Recognize, Diagnose and Recover from Errors	2	Introduce a simple to find/use customer support feature
Settings page	Users cannot narrow profiles based on preferences	User Control and Freedom	4	Add methods to narrow card stack down to more compatible users
Card stack interaction	No alternative method of interaction other than swiping	Flexibility and Efficiency of Use	2	Introduce a panel of buttons to use for interaction

6.



When it came to analysing the results of each individual heuristic evaluation, there were a number of similar issues that were found by multiple team members. The most common violated heuristics for Tinder were ‘User Control and Freedom’ and ‘Recognition Rather Than Recall.’ One of the most severe problems that were found unique to Tinder was the fact that users are unable to recover from accidental swipes without payment. This issue was spotted by four of five evaluators and we came to a consensus that this feature should be introduced to the free model for the application as it is currently a leading edge for Bumble to offer this feature at no cost (to a limited degree). Another severe issue unique to Tinder is that we found that there are too many icons on the bottom of the screen, with many buttons having unclear purposes. We found that this clutters the interface and can be overwhelming for newer users.



Issues that were unique to Bumble included the application only allowing users to register through Facebook, adding an unnecessary filter to their user base. In addition, we found it to be unjustifiable that Bumble only allows users to match with people of the same sex in the Bumble Bff section. Finally, we found difficulty in accessing any customer support from within the application.

The issues shared by both platforms involved users having to remember which direction to swipe. We found this to be an issue that can be solved by reintroducing swiping instructions upon the first few uses. Additionally, a problem that we found common among both applications is that there are no options to narrow the number of shown profiles based on any preferences. We found ourselves swiping for an extended amount of time before finding people that interested us. If it was possible to search by similar interests or other parameters, this would reduce the amount of time searching through profiles, and increase interactions/matches between users, which is the ultimate goal of each application.

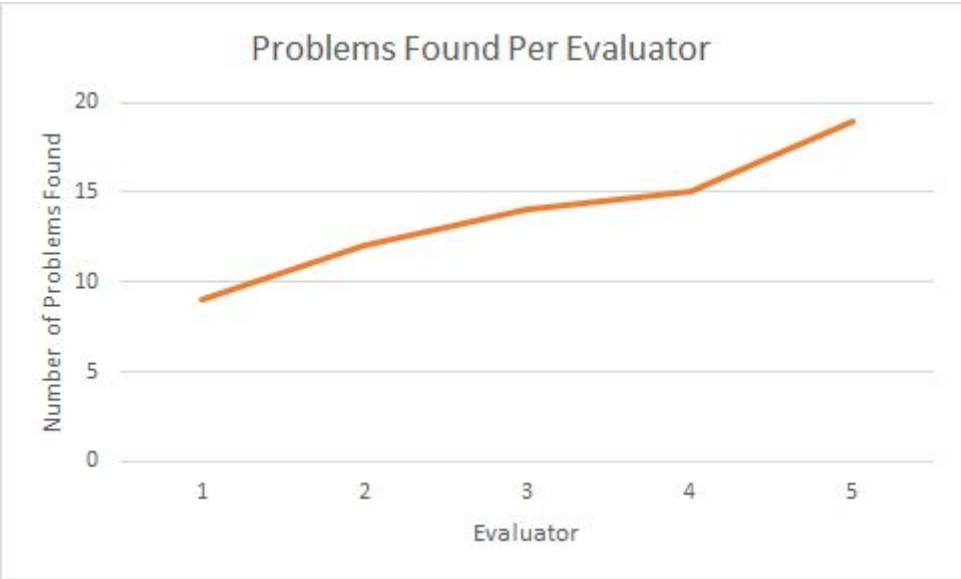
Overall, both products share their own usability problems that have fairly simple fixes in theory. Some problems involving consistency among interaction techniques would require iterative design in order to find optimal solutions. The most common heuristic that was violated between both platforms was ‘User Control and Freedom’, so keeping this in mind moving forward will allow for a clear common goal in terms of improving upon the applications.

7.



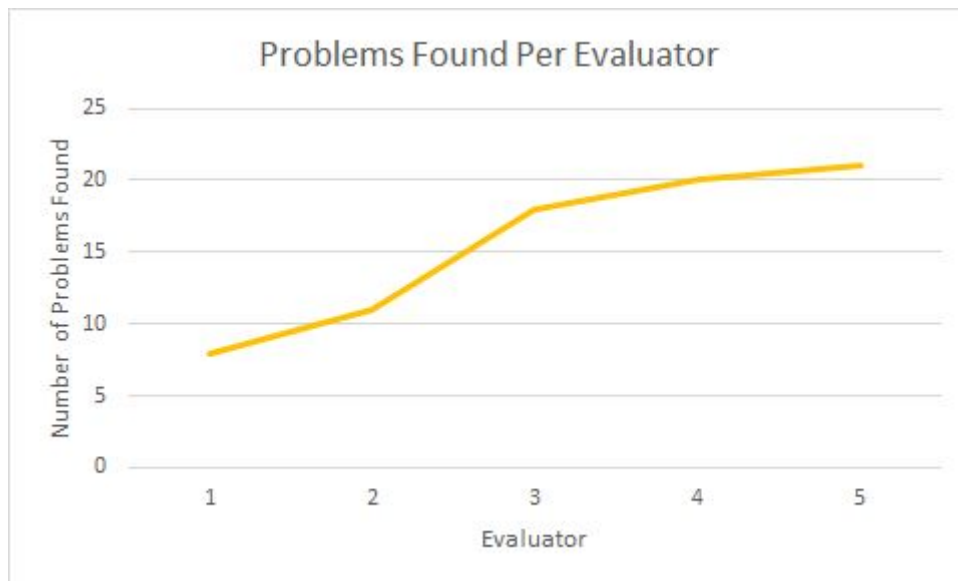
Severity	Evaluator 1	Evaluator 2	Evaluator 3	Evaluator 4	Evaluator 5
1	1	1	3	3	1
2	5	2	2	3	4
3	1	4	1	2	0
4	2	0	1	0	0
5	0	0	0	0	0
Total Problems	9	7	7	8	5

Evaluator	Problems	Unique	Cumulative Unique
1	9	9	9
2	7	3	12
3	7	2	14
4	8	1	15
5	5	4	19



Severity	Evaluator 1	Evaluator 2	Evaluator 3	Evaluator 4	Evaluator 5
1	2	2	4	2	1
2	3	2	3	2	2
3	2	2	1	3	0
4	1	0	2	1	0
5	0	0	0	0	0
Total Problems	8	6	10	8	3

Evaluator	Problems	Unique	Cumulative Unique
1	8	8	8
2	6	3	11
3	10	7	18
4	8	2	20
5	3	1	21



8.

The evaluation proved to be quite effective for finding multiple unique UI problems within both apps, and for cementing which issues are the most apparent to users with UI experience. Most of the evaluators found similar issues within the app, and these are, in general, the most problematic according to Jakob Nielsen's heuristic standards. Each evaluator was able to find at least one unique heuristic problem for each app, meaning that there are a wide range of problems that were identified, with differing severity, giving us the ability to fix most tasks within the app, based on the severity of the problem.

9.

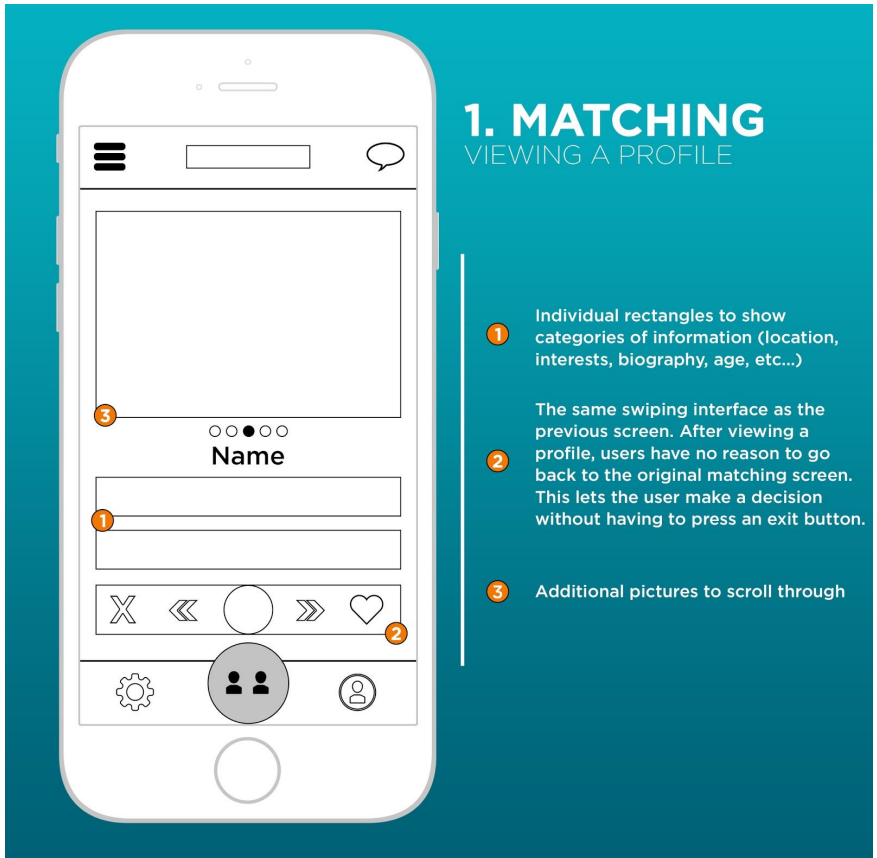
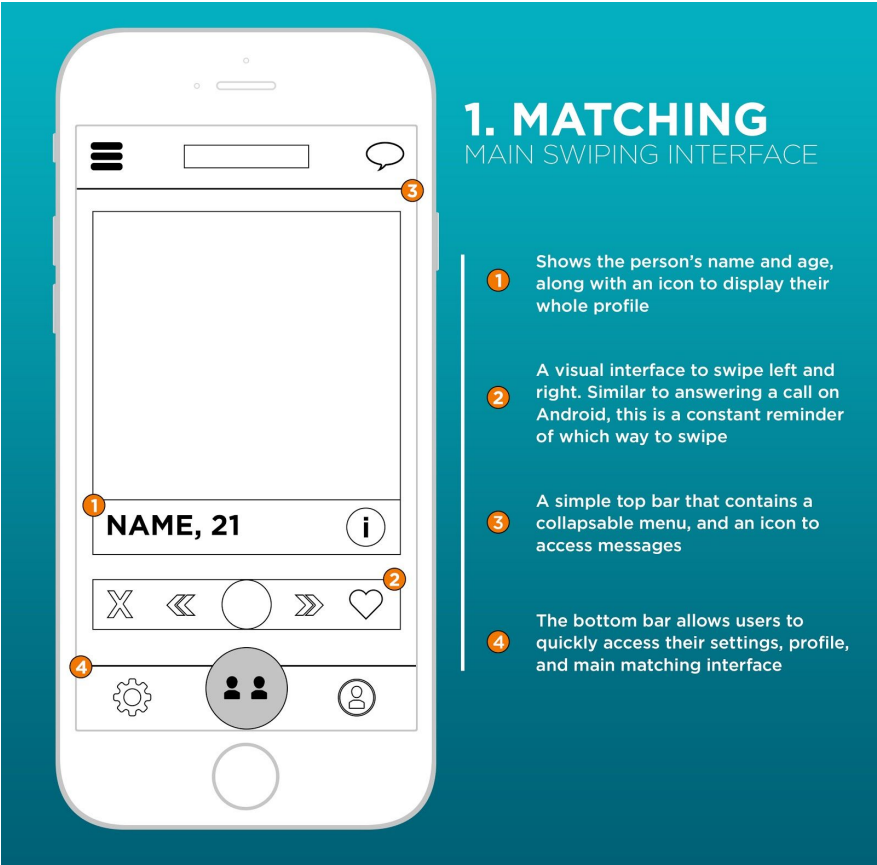
Based on the results we obtained from our heuristic evaluations we were able to make a short list of design requirements that are key to user satisfaction. Some of our findings were not only found by most evaluators but also severely violated heuristics according to Nielsen's heuristic standards, these are the problems we believe to be the most important design requirements. First off, allowing the users to have more than one option for setting up their accounts, this is important as it allows users to choose how they want to sign up and doesn't limit any users who may not have one of the methods. The goal of these free dating apps are to connect people thus should restrict users before using the program itself. Additionally, having the option to narrow down potential matches based on similar interests, this screening

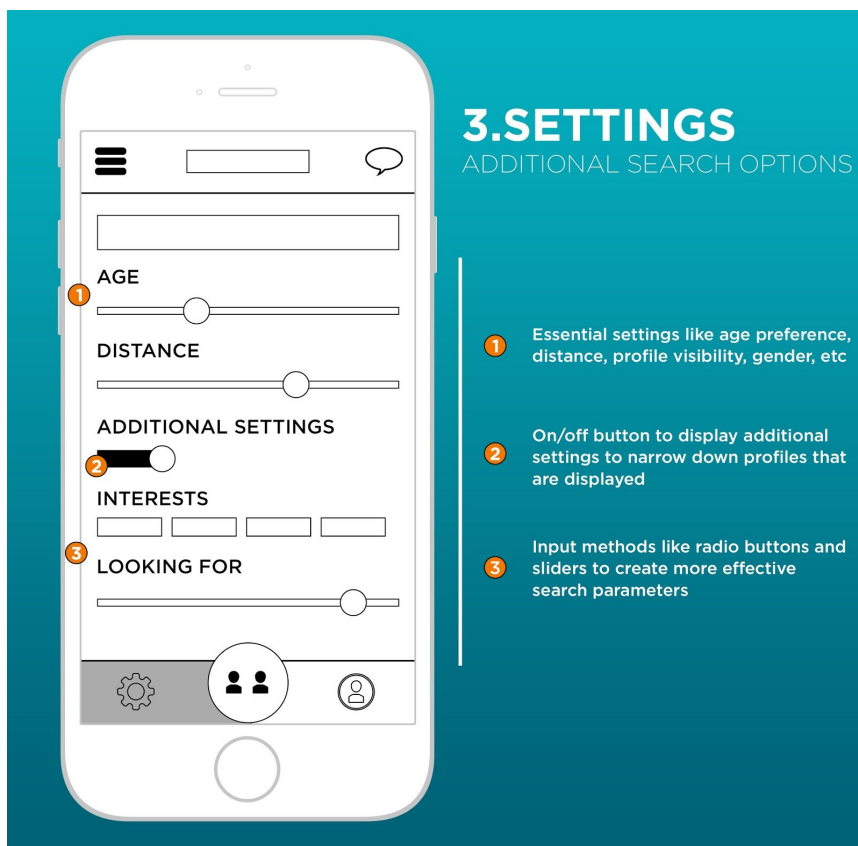
process would allow users to filter through profiles based on what they like or what they are looking for through this app and could lead to more effective and efficient matches.

Next, the option to retrieve profiles that you may have accidentally swiped the wrong direction on is important as it allows users to recognize and recover mistakes. Once you open a profile in this type of app you will not likely see the profile again so the option for users to redeem themselves if they have made a mistake is important to give them a sense of control.

Another design requirement is to have few and basic icons for easier recognition for users.

These basic icons would allow new users and infrequent users to immediately understand their meaning and use them effectively without having to remember what they do. Having few icons would also reduce the visual clutter from the interface and increase successful use of icons. Similarly, having an indicator for what direction to swipe to like or reject profiles could increase the effectiveness of users executing their desired action on the first try. This indication in addition to basic icons may even reduce the need for the option to recover profiles from accidental swiping in the wrong direction.





Appendix A

Individual Heuristic Evaluations

KYTE (EVALUATOR 1)



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Card stack interaction	Users have to remember which direction to swipe to say yes or no to a potential match, even with buttons available	Recognition Rather Than Recall	1	Reintroduce swiping effects for the first few uses
Card stack iconography	Buttons used for different functions can be confusing for the user	Recognition Rather Than Recall	2	Reintroduce icon descriptions for the first few uses
Card stack interaction	Mobile app conventions give the user the ability to swipe left and right between pages in an application, and this feature is available on Tinder as well, however with the swiping features also being used on the main feed page, it can lead to swiping errors	Error Prevention	3	Stick to one swiping convention throughout the platform
Card stack interaction	Users can easily swipe in the incorrect direction, especially with Super-Like feature, no way for the user to confirm their decision	Error Prevention	4	Add a confirmation pop-up for 'big' actions like Super-Likes
Card stack interaction	When looking at a profile in the feed, the user can tap on the profile to look through photos and swipe left or right to like/dislike, but when on the profile page, the user can tap or swipe through photos and can only hit the buttons to like/dislike someone	Consistency and Standards	2	Stick to one interaction convention for photos throughout the platform
Profile interaction	On a profile page, the user is unable to swipe down to exit the page, as is conventional for most apps with pop-ups, instead the user must hit the down arrow to leave a profile	Consistency and Standards	2	Stick to one interaction convention throughout the platform
Notifications	Difficult to know difference between a notification for a new message versus a notification for a new match	Visibility of System Status	2	Make clearer notifications
Card stack interaction	A user cannot recover from an accidental dislike swipe, unless	Help Users Recognize, Diagnose, and Recover from Errors	4	Introduce some of these features to the free model

	they pay for Tinder Premium			
Settings page	A user cannot change whether or not they want to see people they know in their feed, and cannot control who sees them in other users' feeds, other than limiting by age	User Control and Freedom	4	Add methods to narrow user base down to more compatible users



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Card stack interaction	Users must remember which direction to swipe in order to like/dislike a potential match, there are no buttons available on screen (other than Super-Swipe)	Recognition Rather Than Recall	3	Reintroduce swiping effects for the first few uses
Card stack interaction	The accidental swipe recovery is difficult to access and not intuitive (shaking the mobile device)	Recognition Rather Than Recall	4	Add a backtrack button to the UI
Card stack interaction	The app does not allow swiping between pages, which goes against normal app conventions, but is understandable due to the other swiping features in the app	Consistency and Standards	1	Stick to one interaction style throughout the platform
Card stack interaction	When a user taps on the photos of a potential match in the feed, it makes their photos fullscreen and the user must tap again to exit the fullscreen, this goes against normal standards of swiping down quickly to exit pop-ups in an app, and can make it confusing for the user to get out of, especially with no onscreen cues or buttons	Consistency and Standards	2	Stick to one interaction style throughout the platform
Card stack interaction	The user must swipe up and down on a potential matches photos to go through them, instead of left and right, or tapping which is conventional	Consistency and Standards	1	Conform to a more conventional interaction method
Platform interface	There are no visual cues on the message section of the app when a user has made a new match	Visibility of System Status	2	Provide a notification for new matches
Platform	When a user selects Bumble BFF,	User Control and Freedom	3	Allow user to set how they

interface	the app limits their friendship options to members of the same sex			want to limit their options
Settings page	Users are unable to select who can see them, and who they see in their feed, other than limiting by age	User Control and Freedom	2	Add methods to narrow user base down to more compatible users

DIMA (EVALUATOR 2)



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Settings page	Information on Settings page is pressed together and cluttered.	Aesthetic and Minimalist Design	2	Add padding to the text
Card stack iconography	Not clear what the icons on the bottom of the card stack mean	Recognition Rather Than Recall	3	Reintroduce icon descriptions for the first few uses
Card stack interaction	Not clear on the effects of each direction of swiping	Error Prevention	4	Reintroduce swiping effects for the first few uses
Card stack interaction	Unable to recover from mis-swipes without payment	Help Users Recognize, Diagnose, and Recover from Errors	4	Add this feature to the free model
Card stack interface	No method of finding out how many users are in the card stack	Visibility of System Status	2	Show number of users in your stack as you adjust search parameters
Settings page	Lack of customization in terms of narrowing users	User Control and Freedom	4	Add methods to narrow user base down to more compatible users
Throughout	Useful features hidden by paywalls	User Control and Freedom	3	Introduce some of these features to the free model



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Card stack interaction	Multiple ways to look through photos, with one way being much slower (having to tap to open and	Consistency and Standards	3	Eliminate the slower photo carousel method

	close)			
Settings page	Lack of customization in terms of narrowing users	User Control and Freedom	4	Add methods to narrow user base down to more compatible users
Card stack interface	No method of finding out how many users are in the card stack	Visibility of System Status	2	Show number of users in your stack as you adjust search parameters
Settings page	Lack of customization in the settings	User Control and Freedom	3	Add more customization
Card stack interface	Effects of swiping direction not clear (logos shown are not clear)	Error Prevention	3	Reintroduce swiping mechanics upon first few loads
Card stack interaction	Shaking to backtrack feels unnatural and unintuitive	Help Users Recognize, Diagnose, and Recover from Errors	2	Add a backtrack button to the UI

Gen (EVALUATOR 3)



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Advertisements	App opens on advertisements with no exit button	User Control and Freedom	1	Add an exit button to ads
Card stack interaction	No instruction on what direction to swipe other than x=not interested, heart=like	Recognition Rather Than Recall	2	Reintroduce swiping instructions for the first few uses
Settings page	Cannot narrow profiles based on preferences (lack of customization)	Flexibility and Efficiency of Use	3	Add methods to narrow user base down to more compatible users
Card stack interaction	Cannot go back if you miss-swipe on a profile unless you pay	Error Prevention	4	Introduce this feature to the free model
Card stack iconography	Too many icons on bottom of screen for users to remember their purposes	Aesthetic and Minimalist Design/Recognition Rather Than Recall	2	Find a way to reduce clutter on the card stack page
Card stack interaction	Confusing when looking through profile images can scroll down or side to side (swiping = liking/disliking) you must click	User Control and Freedom/Consistency and Standards	1	Stick to a consistent interaction method
Settings page	Cannot change age when logged in with Facebook (must log into Facebook to change)	User Control and Freedom	1	Allow users to change their age in the settings



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Settings Page	User MUST log in with Facebook	User Control and Freedom	3	Allow users to log in/register with a number of methods
Card stack interaction	No instruction on what direction to swipe	Recognition Rather Than Recall	4	Reintroduce swiping effects for the first few uses
Card stack interaction	Icons that appear when user swipes show up too late (not visible enough)	Consistency and Standards	1	Increase visibility of these icons
Settings page	Cannot narrow profiles based on preferences (lack of customization in settings)	Flexibility and Efficiency of Use	1	Add methods to narrow user base down to more compatible users
Platform interface	On Bumble Bff you can only match with people of the same sex as yourself	User Control and Freedom	2	Allow users to set how they want to limit their options
Card stack interaction	No indication that shaking allows users to see the three most recent profiles	User Control and Freedom/ Error Prevention	2	Reintroduce this mechanic for the first few uses
Support	No clear indication of where to go for support	Help Users Recognize, Diagnose, and Recover from Errors	4	Introduce a simple to find/use customer support feature
Platform interface	Pictures for apps three variations are identical	Flexibility and Efficiency of User	2	Differentiate the images more
Card stack iconography	Icons have different purposes than similar apps Ex: heart = super like	Consistency and Standards	1	Stick to the standards for dating application iconography
Settings page	Can't change age when logged in with Facebook (must log into Facebook to change)	User Control and Freedom	1	Allow users to change their age regardless of their method of registration

Kenny (EVALUATOR 4)



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Card stack interaction	After completing the tutorial, users must remember which way to swipe. It cannot be brought back up	Recognition Rather Than Recall	2	Reintroduce swiping effects for the first few uses
Card stack	User cannot undo an action	Help Users Recognize, Diagnose	3	Introduce these features to the

interaction	without paying a fee	and Recover from Errors		free model
Card stack iconography	App is completely icon-based	Recognition Rather Than Recall	3	Reintroduce icon descriptions for the first few uses
Card stack interaction	Swiping left and right while viewing a profile cycles through pictures, rather than liking or disliking	Consistency and Standards	3	Stick to a consistent interaction method
Platform interaction	Some screens (ads and payment info) do not have exit buttons, you must use the phone's built-in back button	User Control and Freedom	2	Add exit buttons
Settings page	When logged in using Facebook, age can only be changed through Facebook	User Control and Freedom	1	Allow user to change age in the settings page
Profile setup	Tinder automatically uses pictures from your linked personal account, and you must manually take them off your profile if you don't want them	Flexibility and Efficiency of Use	1	Include picture-linking as an individual step done manually upon setup
Card stack interaction	There is no way to tell how many profiles you have left to view before you get to the end of the list	Visibility of System Status	3	Show number of users in your stack as you adjust search parameters



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Card stack interaction	After completing the tutorial, users must remember which way to swipe. It cannot be brought back up	Recognition Rather Than Recall	2	Reintroduce swiping effects for the first few uses
Card stack interaction	Users must shake their phone to undo an action	Flexibility and Efficiency of Use	3	Add a backtrack button to the UI
Card stack interaction	The window that pops-up telling users to shake their phone will not go away unless they shake their phone	User Control and Freedom	3	Get rid of the shaking mechanic all-together
Card stack interaction	There are no alternate icons for liking and disliking - users have to swipe	Flexibility and Efficiency of Use	2	Introduce a panel of buttons to use for interaction
Settings page	Users have to log in using Facebook	Flexibility and Efficiency of Use	4	Allow a number of methods for users to sign in/register
Support	No easy way to get support	Help Users Recognize, Diagnose and Recover from Errors	1	Introduce a simple to find/use customer support feature

Profile setup	Bumble automatically uses pictures from your linked Facebook account, and you must manually take them off your profile if you don't want them	Flexibility and Efficiency of Use	1	Include picture-linking as an individual step done manually upon setup
Platform interface	Bumble Bff does not allow you to match with people of the opposite sex	User Control and Freedom	3	Allow users to set how they want to limit their options

Yui-Jhun (EVALUATOR 5)



Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Login Page	When users enter the app, they must sign in with Facebook in order to make an account. While this does help prevent fake accounts from popping up more easily. It shrinks tinder's audience to only those with Facebook accounts.	User control and freedom	2	Add other ways to sign in such as Gmail, Instagram or other social media accounts.
Bio Page	Once logged in Tinder automatically fills in personal information in the bio such as, age, name etc. Although this prevents fraud and makes the process easier. Users may feel that Tinder has fully accessed their Facebook accounts and in use of their personal information. Although Tinder states they will not post or use information for other purposes.	User control and freedom	2	When making bio leave blank or ask (again) if tinder could use their Facebook for this purpose.
Bio Page	During profile creation there is no progress bar or indication of how long or fast this process takes. This is important to help new users that are nervous that this is a lightweight app	Visibility of Status	1	Add a progress bar.
Main Page	If users run out of potential people to match with, users only options are to wait or to restart the app deleting current matches.	Help users recognize, diagnose, and recover from errors	2	Allow users to re-swipe on past swipes encase they missed a user.
Main Page	Fake profiles are an issue with tinder. Users can match with tinder	Error prevention	2	Have a verification system to keep users sure they are talking

	profiles with bios and ages, but be talking to a bot.			to the person in on the profile. Bumble already has this.
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Evaluated UI Component/Task	Problem Found	Heuristic	Severity	Preliminary Recommendation
Main Page	When users enter the app, before they can view the main UI they are met with an add for bumble premium. This is a poor choice of timing as user are not going to want to upgrade when they even haven't looked at the app yet or are going they're for a specific purpose such as to reply to a message. Aesthetically it also does not look nice.	Aesthetic and minimalist design	2	Have smaller suggestions, when users are exploring the app or want to unlock more app functionality they will consider premium from settings screens or profile a page.
Login Page	When users enter the app, they must sign in with Facebook to make an account, this causes the same issue as tinder.	User control and freedom	2	Add other ways to sign in such as Gmail, Instagram or other social media accounts.
Main Page	App users have no idea if other users are on or using the app.	Visibility of Status	1	Add a counter or a system to show current users.