

## A Literature Review on Information Disclosure Antecedents and Outcomes in Dating Apps

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**Abstract:** This literature review examined seven studies selected from a pool of 1,770 articles identified in three scientific databases. The review aimed to map the factors (antecedents) that influence users' disclosure of personal information (outcome) on dating apps, using the APCO model as a theoretical framework.

The findings established correlations between the theoretical antecedents proposed by the APCO model and real-world scenarios, demonstrating that various factors impact decisions to disclose private information on dating apps. This connection highlights the significance of privacy violations, which can lead to severe consequences such as stalking and physical violence.

Moreover, some studies revealed that the types of photos users display on their dating profiles correlate with increased likelihoods of risky sexual behavior.

These insights into user behavior in the computer-mediated environment of dating apps underscore the need for mechanisms that better protect user privacy in both social and physical contexts. Such findings also provide a foundation for developing more effective health interventions and awareness campaigns.

**keywords:** privacy, disclosure, dating apps, privacy violation, APCO model.

### 1. Introduction

The download statistics from Apple's and Google's app stores show an increase in the popularity of dating apps. In 2013, 5% of individuals between 18 and 24 years old reported using mobile dating apps, and this number jumped to 22% in 2015 (A. Smith & Anderson, 2016). Tinder is the biggest app in this category (Sawyer et al., 2018), while Grindr, the equivalent to the gay, bi, and queer community (Anderson et al., 2018), has 3 million daily users that spend 50 minutes daily on it (C. Smith, 2021).

Different reasons can be attributed to this accelerated growth, such as limited time available to meet due to a career-focused lifestyle, more mobility, globalisation and the decrease of romantical approaches in the workplace due to the current harassment sensitivity in our society (Stoicescu et al., 2019).

While information sharing is the primary way people establish communication in dating apps, this process exposes users to privacy-related risks, such as physical violence, stalking, and disclosure of private photos (Henry & Powell, 2016). The implications to users' privacy are yet to be thoroughly researched (Farnden et al., 2015).

### 2. Scope

This literature review focuses on articles and studies related to dating apps. It is not part of this work to assess the information disclosure in dating websites or the implications that arise from selling user data by the app owners to third parties.

### 3. Importance of this work

This work seeks to summarise and review the current state of knowledge regarding what factors influence the users' disclosure of personal information in dating apps. There two main reasons why this subject is relevant are described below:

#### 3.1. Privacy Violations

The behaviours displayed in computer-mediated communication differs from the in-person interactions (Stoicescu et al., 2019), which may lead to people sharing information that they would not do on other occasions.

The privacy violations that can happen in the online dating environment were categorised in four different groups by (Cobb & Kohno, 2017):

- a) Unanticipated disclosure: it happens when the user's data leaks on the internet (information or screenshots) without the consent of the owner;
- b) Scams, bots, and catfishing: when a person pretends to be someone else, either for personal reasons or for information extraction;
- c) Stalking, cyberstalking, inappropriate messages, and violence;
- d) Employment and business-related risks: when the employer would use the information present in dating apps to decide to hire or not someone.

Additionally, (Henry & Powell, 2016) mention also the risk of crimes, sexual assault, harassment and revenge porn. They also debate the need to have a regulation governing the online environment and user exposure.

Some examples of those privacy violations can be found in news outlets. One journalist created a fake profile on Grindr during the Olympics game in Brazil to publicly out gay athletes (Elle Hunt, 2016; McNamara, 2016) and several users' reports experienced stalking or physical aggression (Andrew Koubaridis, 2014)(Gwen Aviles, 2019; Jordan Mendoza, n.d.).

Other researchers also mention that privacy is a matter of physical safety, especially for men who have sex with men (MSM) who live in socially conservative states or countries (Stoicescu et al., 2019) and lack a physical location to meet other MSM (Corriero & Tong, 2016).

Therefore, understanding the factors involved to privacy-related decisions in dating apps is important to support the creation of an approach or framework tailored to help users aware of the risks they are subjecting themselves to. Also, the result of this literature review can be used as an input for dating apps to implement functionalities to help users make more well-informed choices of sharing or not their private information and how to prevent and mitigate risks originated from the interactions in their platform.

### **3.2. Patterns in Profile Building and Behaviors**

There is evidence found in multiple studies that the way users present themselves through their profiles and act while using dating apps can predict risky behaviour (Sawyer et al., 2018). For instance:

- Sexualized photos on dating apps and social media profiles are associated with riskier sexual practices, such as unprotected anal intercourse (Winetrobe et al., 2014);
- Individuals have a bigger chance of engaging in more risky behaviours if they spent a few days or less talking on apps when compared to people who were talking for at least a few weeks.(Hahn et al., 2018).

Understanding how users behave online and craft their profiles can help identify harmful and risky behaviours, allowing more efficient public health and awareness campaigns.

Even though privacy risks should be accepted when interacting with unknown people online, a better understanding of how and why people disclose information can support the development of a better education framework that can raise users' awareness about the implications and consequences of such actions.

### **4. How dating app works**

In the online dating environment, there is a constant tension between privacy and sharing, where users need to disclose to strangers their personal information in a negotiation process involving their expectations and the functionalities present in the app being used (Stoicescu et al., 2019).

To use dating apps, one should download the application into their smartphone. After creating an account, it will be possible to interact with other users through a public profile. A critical part of the communication and the interaction process is how users create and populate their profiles with personal information to distinguish themselves from others in an attempt to attract suitable matches.

In general, users have room to share their name, physical attributes, photos, links to social media, and other types of preferences, ranging from hobbies and music styles to sexual predilections. Such information can be seen by anyone who is also a user of those apps, as it is displayed in a public profile.

The exact location and distance between users, using the smartphone's GPS, are also featured in some apps, such as Grindr and Bumble. It is also possible to share more information in private conversations, between two or more users, for example, photos, videos, and audio messages.

### **5. Antecedents and Outcomes of information disclosure**

The concepts of antecedents and outcomes come from the model proposed by H. Jeff Smith, Tamara Dinev, and Heng Xu (Jeff Smith et al., 2011) called APCO, which stands for antecedents, privacy concerns, and outcomes. Their study analysed the correlation between privacy and other different constructs by adopting the measurement of "privacy concerns" as a proxy to measure privacy itself, as the latter is near impossible to measure. (Jeff Smith et al., 2011)

This model was selected as a framework for this literature review since it establishes factors, named as antecedents, that can lead to a given outcome, in this case, behaviour reactions, which include disclosure of information.

The antecedents mentioned H. Jeff Smith, Tamara Dinev, and Heng Xu are:

- Privacy experiences;
- Privacy awareness;

- Personality differences;
- Demographic differences;
- Culture and climate.

**6. Method**

This literature review analysed articles from two different sources: (1) three distinct articles databases and (2) studies found in the references of the articles from the database search.

Both steps are described below:

**6.1. Phase 1 - Literature Searches**

Literature searches were conducted in SCOPUS, SPRINGER, and Science Direct databases with the combination of the following words: “privacy,” “disclosure”, “behavior”, “behaviour”, “tinder”, “grindr”, “dating apps”, “hook up app” and “online dating”, without time restriction regarding its publication date. The detailed list of each article found, and in which step it selected or not can be found in appendix A.

Depending on the search functionalities available on those databases, the specific query used was slightly adjusted to improve the quality of the search result without impacting the scope or objective of this literature review. The source database, the query used, and the total number of articles found in each of them can be found in Table 01.

<b>Database</b>	<b>Query</b>	<b>Date of Search</b>	<b>Total of Articles</b>
<b>Scopus</b>	TITLE-ABS(privacy OR disclosure OR behavior OR behaviour AND tinder OR grindr OR datingapps OR hookupapp OR onlinedating)	<a href="#">27-Jul-20</a>	91
<b>Springer</b>	privacy OR disclosure OR behavior OR behaviour AND tinder OR grindr OR datingapps OR hookupapp OR onlinedating	05-Aug-20	1640
<b>Science Direct</b>	(privacy OR disclosure OR behavior OR behaviour) AND (tinder OR grindr OR "dating apps" OR "hook up app" OR "online dating")	29-Jul-20	39

*Table 1 - List of Databases, Queries and Results found*

After collecting the resulting 1770 articles from the three databases, the following criteria were used in the analysis and triage of the results:

1. Language: Articles should be written in English;
2. Type of work: Only articles were considered, excluding books, book chapters, and editorials;
3. Scope: the title and abstract should indicate that the study focused on dating apps (not dating websites, as they have different functionalities).

Subsequently, 124 articles matched those three criteria and were selected for complete text analysis. From this total, five articles fully satisfied the requirements to be included in the literature review: utilising date apps as an object of study, presenting a correlation between the factors (antecedents) that lead to personal information disclosure (outcome) and what methodology was employed in the study.

In total, 14 articles were removed as they were duplicated. Figure 01 shows how many articles were selected in each literature review step.

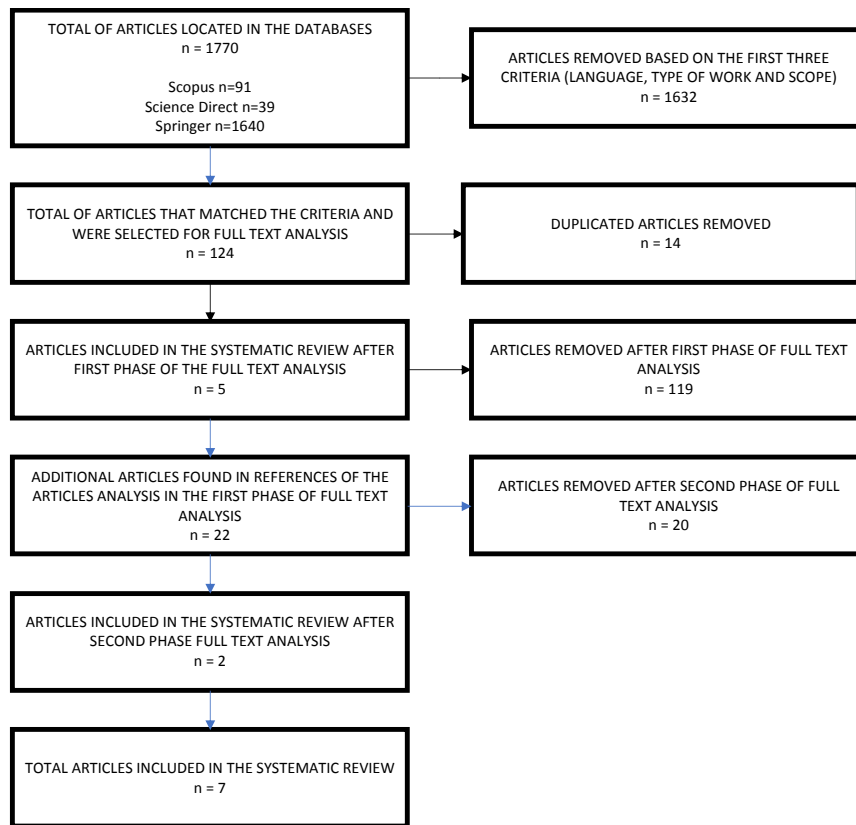


Figure 1 - Amount of articles selected in each step

### 6.2. Second Phase – Referenced Articles

Additionally, other 22 articles were found during the complete screening of the articles collected in the previous phase. Of this total, 18 were not relevant, one was removed for being a book, and two were included in the literature review as they matched the three criteria established previously.

The initial step of evaluating articles found in the references consisted firstly in the analysis of their title, reading of their abstract and, finally, the whole reading and critical analysis of the publication. Only articles that fully met the same criteria as previous studies were included in this literature review.

### 6.3. Data Analysis and Results

Table 03 summarises the findings from the seven articles that fulfilled all the criteria established for this literature review, identifying the title and year of the publication, author(s), the dating app studied, and the methodology and sample population of the article. Their findings will be explored in detail in Chapter 08.

Article Title	Year of Publication	Author(s)	Dating App studied	Data Collection Methodology	Sample
Associations of unprotected anal intercourse with Grindr-met partners among Grindr-using young men who have sex with men in Los Angeles	2014	Winetrobe, Hailey, Rice, Eric, Bauermeister, Jose, Petering, Robin, Holloway, Ian W.	Grindr	Online Survey	195 completed surveys
Breaking Boundaries: The Uses & Gratifications of Grindr	2014	Van De Wiele, Chad, Tong, Stephanie Tom.	Grindr	Online Survey	Study 1 sample = 63 men Study 2 sample = 525 men

<b>How Public Is My Private Life? Privacy in Online Dating</b>	2017	Cobb, Camille, Kohno, Tadayoshi.	Tinder	1) Open-ended survey 2) Analysis of Tinder profiles only of "man looking for woman" and "woman looking for man" 3) Semi-structured interviews with a subset of survey respondents	1) Open-ended survey = 98 2) Analysis of Tinder profiles = 400 profiles 3) Semi-structured interviews with a subset of survey respondents = 14 interviews
<b>Swiping me off my feet: Explicating relationship initiation on Tinder</b>	2018	LeFebvre, Leah E.	Tinder	Online Survey	395 participants
<b>User Motivation and Personal Safety on a Mobile Dating App</b>	2019	Breitschuh, Vanessa, Göretz, Julia	Tinder	Survey	346 participants (272 identified as female, 73 identified as male, 1 identified as non-binary)
<b>Social and Personal Disclosure in Location-Based Real Time Dating App</b>	2015	Fitzpatrick, Colin, Birnholtz, Jeremy, Brubaker, Jed R.	Grindr	Information Scrapping from the app	53,426 observations of 38,402 unique users from six different cities
<b>Locality and Privacy in People-Nearby Applications</b>	2013	Toch, Eran, Levi, Inbal.	Skout, Blendr, SayHi	Inteviews conducted over Internet	25 participants (18 male, 7 female)

Table 2 - Summary of relevant articles found for this Literature Review

## 7. Findings

This literature review aims to analyse previous research on the antecedents that would impact disclosing personal information in dating apps.

Creating a compelling and exciting public profile is the key to using such apps, and sharing is a way of bonding and forming a connection online. However, disclosing names, addresses, photos, and other information without appropriately weighing in risks and consequences can harm users in different ways, both physically and reputationally.

The results found in the analysis of those articles show that different factors can increase or decrease users' motivation to share personal information:

- Display of naked chest or abs in the public profile;
- Motivation to use the app: romantic relationship;
- Motivation to use the app: social inclusion and sexual gratification;
- Find compatible matches;
- Increased pressure from others;
- Need to avoid negative feelings or emotions / Safety;
- Desire to promote "who they are" and which partners they want to attract;
- Sexual Orientation;
- BMI (Body Mass Index);
- Age;
- Race;
- Relationship Status;
- Relationship Goals / Motivations;
- Need or Desire to convey trust (trust mechanism);
- Geographic location of the user (Cities versus Rural Locations).

The table below summarizes the antecedents and the outcomes identified in the full text analysis of the articles. The results will be described in detail in the next chapter.

Antecedents	Outcomes	Goal of the Study / Research Questions	Sample	Data Collection Methodology	Dating App in question	Article
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<b>Display of naked chest or abs in the public profile</b>	Unprotected Anal Intercourse	Which factors are associated with the practice of UAI with a Grindr-met partner	195 completed surveys	Online Survey	Grindr	Associations of unprotected anal intercourse with Grindr-met partners among Grindr-using young men who have sex with men in Los Angeles
<b>Motivation to use the app (romantic relationship)</b>	Increased frequency of self disclosure	<p>Study 1</p> <p>Open ended questions which answers were coded using thematic analysis:</p> <p>(1) What is the first thing that comes to mind when you think about what you enjoy most when accessing Grindr?</p> <p>(2) What other words describe what you enjoy most about interacting through Grindr?</p> <p>(3) Using easy-to-understand terms, please describe what you use Grindr for</p> <p>(4) What functions of Grindr are most important to you?</p> <p>Study 2</p> <p>Closed ended questions for scale, based on the answers from study 1.</p>	Study 1 sample = 63 men Study 2 sample = 525 men	Online Survey	Grindr	Breaking Boundaries: The Uses & Gratifications of Grindr
<b>Motivation to use the app (social inclusion and sexual gratification)</b>	Decreased probability of honest self presentation	<p>Study 1</p> <p>Open ended questions which answers were coded using thematic analysis:</p> <p>(1) What is the first thing that comes to mind when you think about what you enjoy most when accessing Grindr?</p> <p>(2) What other words describe what you enjoy most about interacting through Grindr?</p> <p>(3) Using easy-to-understand terms, please describe what you use Grindr for</p> <p>(4) What functions of Grindr are most important to you?</p> <p>Study 2</p> <p>Closed ended questions for scale, based on the answers from study 1.</p>	Study 1 sample = 63 men Study 2 sample = 525 men	Online Survey	Grindr	Breaking Boundaries: The Uses & Gratifications of Grindr
<b>Find compatible matches</b>	Increasing disclosure of personal information: Name (first and last) Job School Sexual history preferences Religion Political Opinions Photos and private photos	Analysis of privacy-related risks, practices, and expectations of people who use or have used online dating	1) Open-ended survey = 98 2) Analysis of Tinder profiles = 400 profiles 3) Semi-structured interviews with a subset of survey respondents = 14 interviews	1) Open-ended survey 2) Analysis of Tinder profiles only of "man looking for woman" and "woman looking for man" 3) Semi-structured interviews with a subset of survey respondents	Tinder	How Public Is My Private Life? Privacy in Online Dating
<b>Increased pressure from others</b>	Increasing disclosure of personal information: Name (first and last) Job School Sexual history preferences Religion Political Opinions Photos and private photos	Analysis of privacy-related risks, practices, and expectations of people who use or have used online dating	1) Open-ended survey = 98 2) Analysis of Tinder profiles = 400 profiles 3) Semi-structured interviews with a subset of survey respondents = 14 interviews	1) Open-ended survey 2) Analysis of Tinder profiles only of "man looking for woman" and "woman looking for man" 3) Semi-structured interviews with a subset of survey respondents	Tinder	How Public Is My Private Life? Privacy in Online Dating

<p><b>Need to avoid negative feelings or emotions / Safety</b></p>	<p>Decreasing disclosure / Withholding personal information: Name (first and last) Job School Sexual history preferences Religion Political Opinions Photos and private photos</p>	<p>Analysis of privacy-related risks, practices, and expectations of people who use or have used online dating</p>	<p>1) Open-ended survey = 98 2) Analysis of Tinder profiles = 400 profiles 3) Semi-structured interviews with a subset of survey respondents = 14 interviews</p>	<p>1) Open-ended survey 2) Analysis of Tinder profiles only of "man looking for woman" and "woman looking for man" 3) Semi-structured interviews with a subset of survey respondents</p>	<p>Tinder</p>	<p>How Public Is My Private Life? Privacy in Online Dating</p>
<p><b>Desire to promote "who they are" and which partners they want to attract</b></p>	<p>Sharing photos on Tinder Profile</p>	<p>RQ1: Why are users selecting (or deleting) Tinder? RQ2: What are users' profile pre-interaction preferences? RQ3: What motivates relationship initiation swiping strategies for Tinder users? RQ4: What are users' hookup experiences on Tinder?</p>	<p>395 participants</p>	<p>Online Survey</p>	<p>Tinder</p>	<p>Swiping me off my feet: Explicating relationship initiation on Tinder</p>
<p><b>Desire to promote "who they are" and which partners they want to attract</b></p>	<p>Sharing written information about themselves (on the "bio")</p>	<p>RQ1: Why are users selecting (or deleting) Tinder? RQ2: What are users' profile pre-interaction preferences? RQ3: What motivates relationship initiation swiping strategies for Tinder users? RQ4: What are users' hookup experiences on Tinder?</p>	<p>395 participants</p>	<p>Online Survey</p>	<p>Tinder</p>	<p>Swiping me off my feet: Explicating relationship initiation on Tinder</p>
<p><b>Desire to promote "who they are" and which partners they want to attract</b></p>	<p>Empty bios on Tinder profile</p>	<p>RQ1: Why are users selecting (or deleting) Tinder? RQ2: What are users' profile pre-interaction preferences? RQ3: What motivates relationship initiation swiping strategies for Tinder users? RQ4: What are users' hookup experiences on Tinder?</p>	<p>395 participants</p>	<p>Online Survey</p>	<p>Tinder</p>	<p>Swiping me off my feet: Explicating relationship initiation on Tinder</p>
<p><b>Sexual Orientation</b></p>	<p>Type of information shared</p>	<p>RQ1: Why do people use Tinder? RQ2: What motivates users to protect their data on Tinder?</p>	<p>346 participants (272 identified as female, 73 identified as male, 1 identified as non-binary)</p>	<p>Survey</p>	<p>Tinder</p>	<p>User Motivation and Personal Safety on a Mobile Dating App</p>
<p><b>BMI (Body Mass index)</b></p>	<p>Increased chances of showing face / decreased chance of showing body (for higher BMI) Decreased chance of showing face / increased chance of showing body (for lower BMI)</p>	<p>RQ1. Are there geographically local norms around individuating disclosures of face on Grindr? RQ2. How likely are users to individuate themselves through a face photo based on physical characteristics of age and body mass index? RQ3a: Is there a relationship between disclosure of particular races and disclosure of a face photo? RQ3b: Is there a relationship between disclosure of particular relationship statuses and face disclosures? RQ4. Do any particular goals impact the likelihood a user will disclose a face?</p>	<p>53,426 observations of 38,402 unique users from six different cities</p>	<p>Information Scrapping from the app</p>	<p>Grindr</p>	<p>Social and personal disclosure in location-based dating apps</p>



<b>Age</b>	Disclosure of face photo (the higher the age, the smaller the probability of showing face)	<p>RQ1. Are there geographically local norms around individuating disclosures of face on Grindr?</p> <p>RQ2. How likely are users to individuate themselves through a face photo based on physical characteristics of age and body mass index?</p> <p>RQ3a: Is there a relationship between disclosure of particular races and disclosure of a face photo?</p> <p>RQ3b: Is there a relationship between disclosure of particular relationship statuses and face disclosures?</p> <p>RQ4. Do any particular goals impact the likelihood a user will disclose a face?</p>	53,426 observations of 38,402 unique users from six different cities	Information Scrapping from the app	Grindr	Social and personal disclosure in location-based dating apps
<b>Race</b>	Disclosure of face photo	<p>RQ1. Are there geographically local norms around individuating disclosures of face on Grindr?</p> <p>RQ2. How likely are users to individuate themselves through a face photo based on physical characteristics of age and body mass index?</p> <p>RQ3a: Is there a relationship between disclosure of particular races and disclosure of a face photo?</p> <p>RQ3b: Is there a relationship between disclosure of particular relationship statuses and face disclosures?</p> <p>RQ4. Do any particular goals impact the likelihood a user will disclose a face?</p>	53,426 observations of 38,402 unique users from six different cities	Information Scrapping from the app	Grindr	Social and personal disclosure in location-based dating apps
<b>Relationship Status</b>	Disclosure of face photo	<p>RQ1. Are there geographically local norms around individuating disclosures of face on Grindr?</p> <p>RQ2. How likely are users to individuate themselves through a face photo based on physical characteristics of age and body mass index?</p> <p>RQ3a: Is there a relationship between disclosure of particular races and disclosure of a face photo?</p> <p>RQ3b: Is there a relationship between disclosure of particular relationship statuses and face disclosures?</p> <p>RQ4. Do any particular goals impact the likelihood a user will disclose a face?</p>	53,426 observations of 38,402 unique users from six different cities	Information Scrapping from the app	Grindr	Social and personal disclosure in location-based dating apps
<b>Relationship Goals / Motivations</b>	Disclosure of face photo	<p>RQ1. Are there geographically local norms around individuating disclosures of face on Grindr?</p> <p>RQ2. How likely are users to individuate themselves through a face photo based on physical characteristics of age and body mass index?</p> <p>RQ3a: Is there a relationship between disclosure of particular races and disclosure of a face photo?</p> <p>RQ3b: Is there a relationship between disclosure of particular relationship statuses and face disclosures?</p> <p>RQ4. Do any particular goals</p>	53,426 observations of 38,402 unique users from six different cities	Information Scrapping from the app	Grindr	Social and personal disclosure in location-based dating apps



		impact the likelihood a user will disclose a face?				
<b>Need or Desire to convey trust (trust mechanism)</b>	Increasing chance of disclosure of current location	Use and practices on People-Nearby application (Skout, Blendr, and SayHi)	25 participants (18 male, 7 female)	Interviews conducted over Internet	Skout, Blendr, SayHi	Locality and Privacy in People-Nearby Applications
<b>Geographic location of the user (Cities versus Rural Locations)</b>	Disclosure of current location	Use and practices on People-Nearby application (Skout, Blendr, and SayHi)	25 participants (18 male, 7 female)	Interviews conducted over Internet	Skout, Blendr, SayHi	Locality and Privacy in People-Nearby Applications

Table 3 - Summary of Antecedents and Outcomes of Information Disclosure in Dating Apps

### 7.1. Antecedents of information disclosure

The study conducted by (Winetrobe et al., 2014) shows a correlation between the users who displayed naked chest or abs to the practice of unprotected anal intercourse (UAI). The authors theorise that sexualised photo in the profiles are linked to riskier sexual behaviour. However, the authors hesitate to speculate further.

In the article from (Toch & Levi, 2013), dating app users mention the geographic location as a mechanism to induce trust and as a security buffer. Users are suspicious about the standard location provided by the apps, as those can be easily faked; therefore, when someone shares their current location, they signal their trustworthiness or legitimacy. The author also mentions anecdotal evidence from the co-founder of Grindr that users from dense urban areas tend to hide their precise location, in contrast to the users who reside in rural areas, that need to show where they are so other users can locate them. The second use of location is as a security buffer, as some users feel safer when they are physically distant from the person they are talking to.

According to these findings, the need for conveying trust or to be located increases the probability of sharing uses disclosing their real-time location.

When it comes to disclosing photos with faces, several antecedents were identified by (Fitzpatrick et al., 2015) as having an impact on this outcome. Each one of those antecedents is discussed below:

#### 7.1.1. Age

In this study, the higher the user's age, the lower the probability of a face photo being disclosed. According to the authors, two possibilities arise from this finding: the first is that, usually, in dating apps, younger users are more popular, which leads to older users opting for strategies that do not involve sharing their faces. The second is because older users may have been established for more time in a given location, causing them to hide their identity to protect from the negative consequences of being a user of Grindr.

#### 7.1.2. Body Mass Index (BMI)

The BMI plays a similar role to the age antecedent. Users with a higher BMI tend to show more faces than lower BMI individuals. The theory from the authors is that users with lower BMI disclose photos of their bodies (headless torso) instead of their faces.

#### 7.1.3. Relationship Status and Race

According to the authors, the general findings of their study point out that users who include race in their profiles have a decreased probability to disclose their faces. At the same time, users who make their relationship status available have an increased chance of doing so.

They hypothesise that race can become a source of ambiguity when presented with a face photo. Additionally, users who don't want to disclose face photos include race as an additional cue to be used by potential interests.

When it comes to disclosing their relationship status, authors postulate that the increased probability of sharing face photos is simply because they are more willing to share more. However, they recommend further investigation of the reasons why this happens.

#### **7.1.4. Relationship goals**

Users who reported having "friends" and "relationship" as goals for using Grindr have a significant increase of probability of sharing face photos compared to those who look for non-committing purposes, such as fun, dating, and chatting. According to the authors, having a face photo from the beginning is essential to individualise the user to establish a lasting relationship.

The studies from (Cobb & Kohno, 2017; van de Wiele & Tong, 2014) are compatible with the findings from (Fitzpatrick et al., 2015) regarding the correlation between the users' motivation to use dating apps' willingness to disclose personal information. According to those two studies, users who look for romantic relationships have a higher chance of disclosing personal information than those who only want social inclusion and sexual gratification.

More specifically, (Cobb & Kohno, 2017) establish the disclosure of information as a factor that can potentially the chances of finding an adequate match in dating apps. Also, this same study show evidence that peer pressure can lead users to increase the disclosure of personal information, while the need to avoid negative emotions decreases this probability.

The findings from (LeFebvre, 2018) point out that users share information on their Tinder profile, both photos or written information, as a mechanism to promote themselves in the app. In contrast, empty profiles descriptions are connected to safety, privacy, or the desire that the photos would speak for themselves.

It was found that sexual orientation also impacts the disclosure of personal information in dating apps. According to (Breitschuh & Göretz, 2019), there is a difference in what information straight, homosexual and pansexual users make available. For instance, 82.31% of the straight population sample said they disclose their real location compared to 91% of the homosexual participants. Also, among the straight participants, 70% share their real name, while 100% among homosexuals do so. Four participants that declared being Pansexual answered they don't disclose their real name but disclose their actual ages, location, and photos. In this study, the participants mentioned the factors of privacy (86.79%) and personal safety (65.09%) to provide untruthful information.

Based on the results found in this literature view, its possible to identify the correlation between some of the antecedents postulated by H. Jeff Smith, Tamara Dinev, and Heng Xu (Jeff Smith et al., 2011), the exception being the one related directly to the motivation or goal to use the app, as the table below shows:

## **8. Conclusion**

One of the critical aspects of dating apps is attracting people who can fulfil users' objectives and expectations, from romantic relationships to casual encounters. Having an exciting profile can be achieved by a combination of photos and other pieces of information that allow users to filter a multitude of profiles before deciding whom to interact with. After all, a good profile is the chance to cause a positive first impression in an online environment.

As the seven studies show, disclosing personal information while interacting with other users on dating apps can be affected by different antecedents. This is relevant to understand the possible strategies and policies to make users aware of privacy-related risks and, also, how platforms can create measures to prevent and mitigate privacy violations.

Yet, a critical limitation of those studies must be mentioned. Among the seven studies considered, five of them used surveys or questionnaires as the primary tool to ask about users' behaviour, which leaves room for a phenomenon called the "privacy paradox."

Established in 2007 by (Norberg et al., 2007), privacy paradox refers to a dichotomy between what people conceptualise and report as private from how they behave in ordinary circumstances.

It was found in different studies that people report being worried about privacy and their private information. Still, they act in a way that contradicts this concern by giving away information said to be valuable or confidential for small rewards (Jeff Smith et al., 2011)

In other words, users' actions can be objectively different from those reported in the studies. One possible way to reduce the impact of the privacy paradox is to observe the actual behaviour and not the reported behaviour.

However, this would have ethical implications that need to be carefully considered. For instance, it would be ethically questionable if researchers created a fake profile to see how much personal information they could extract from other users on dating apps using profiles with different photos and information.

Also, previous studies focused on one specific dating app. A research opportunity would be to conduct a broad demographic sample study to analyse different apps across different cultures, countries, and apps.

One area that could also benefit from further investigation is understanding how the exposure to privacy violations experienced by others would affect the user's decision to disclose personal information in dating apps. This would be helpful to create strategies to raise awareness and privacy education in different members of society.

## 9. Appendix

### A. List of all articles found in database queries and references

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