

Gone with the wind: Exploring mobile daters' ghosting experiences*

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Abstract

This study explores 328 mobile daters' (63% females; 86% heterosexuals) experiences with ghosting, using both open- and close-ended questions. First, we used thematic analysis to explore mobile dating app users' motivations to ghost, the reported consequences of experiencing ghosting and reported strategies to cope with having been ghosted. Next, quantitative analyses were carried out to predict the likelihood of ghosting other users and which factors contribute to experiencing ghosting as more painful. As both our qualitative and quantitative analyses suggest, experiencing ghosting on a dating app can be quite painful and has an impact on users' self-esteem and mental well-being. However, our findings on ghosters' motives also stress a nuanced perspective on ghosting behavior, given that it is not necessarily done with harmful or conscious intent. As such, our findings also hold practical implications given that insights into mechanisms to cope with ghosting can help dating app users to rationalize their ghosting experience and thus limit its impact.

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Keywords

Breakup strategies, dating apps, ghosting, mobile dating, motives, online dating

Recently, the practice of ghosting has been receiving more academic attention and has been commonly described as unilaterally cutting off contact with a partner and ignoring their attempts to reach out, commonly enacted via one or multiple technological medium(s) (Freedman et al., 2019; LeFebvre et al., 2019). Given that researchers attribute its occurrence to media technologies, ghosting is generally described as a new breakup strategy, despite that some aspects of ghosting are similar to existing breakup strategies found in the literature on breakup strategies. For instance, Baxter (1982) found that withdrawal and avoidance strategies are common strategies for ending relationships, in particular when people in that relationship are not close. Similarly, Cody (1982) developed a five-factor typology of disengagement strategies in which behavioral de-escalation refers to withdrawing or avoiding the partner without verbal explanations. More recently, Collins and Gillath (2012) added Mediated Communication (e.g., texting the breakup decision or changing the Facebook relationship status) to the list of breakup strategies.

Although ghosting may share some similarities with other breakup strategies, it may happen more often in contemporary society. Through mediated communication people can easily reject unwanted suiters by deleting or blocking the other person or by just remaining unresponsive (Tong & Walther, 2011). This ease of ghosting afforded by technological communication makes the practice of ghosting more prominent (Freedman et al., 2019; LeFebvre, 2017). One particular mediated context that has not received much research attention related to ghosting is the use of mobile dating apps (MDAs). MDAs create an abundance of potential partners one can interact with. Rather than talking to one person at a time, mobile daters are encouraged to pursue several interests simultaneously (Hobbs et al., 2017; LeFebvre, 2018). Often, these connections are with people outside their social network (Yeo & Fung, 2016). Indirect relationship dissolution strategies such as ghosting, are more likely to be used if there is a lack of strong social and environmental overlap between two people (Baxter, 1982). Additionally, people often feel discomfort when having to reject unwanted suitors (Bohns & DeVincent, 2019). Behaviors that would have been considered rude in a face-to-face context (e.g. ignoring someone) can become a common strategy in an online dating context because of the relative anonymity and ease provided through mediated forms of communication (Tong & Walther, 2011). Thus, while dating apps allow easy access to potential partners, they also enable easy withdrawal, resulting in connections that are as easily disposed as they are formed (LeFebvre, 2017; Yeo & Fung, 2016).

The main goal of the current study is to explore why mobile daters ghost other users (motivations), how users experience being ghosted (consequences), and which strategies mobile daters use to cope with being ghosted (coping mechanisms). In the following section, we will argue that affordances of mobile dating apps (MDAs) can partly explain why mobile daters are more inclined to ghost. Next, we discuss the potential negative consequences of being ghosted and the need for coping mechanisms. Finally, we are also

interested in investigating which factors contribute to ghosting others and to the degree to which ghostees rate their ghosting experience as painful.

The affordances of mobile dating apps as a driving force behind ghosting behavior

On several MDAs the selection of potential partners is primarily based on images that take up the whole screen, which is often referred to as the visual affordance (Chan, 2017; David & Cambre, 2016). Additionally, some researchers argue that dating apps might have turned dating into a game and are evaluated by some users as a form of entertainment rather than a serious online dating platform (Carpenter & McEwan, 2016; Timmermans & De Caluwé, 2017). As a consequence, this swiping logic may create more emotional distance toward other users and less investment in dating relationships (Krüger & Spilde, 2020). In a similar vein, the mobility affordance of MDAs indicates that dating profiles can be checked on the go as they are judged from a handheld device. Yet, research that examined the role of haptics (i.e., physical touching of the display device) showed that the haptic elements of mobile dating reduce personhood perceptions, thereby implicating that owners of those dating profiles might be more likely treated as commodities rather than actual beings (Banks et al., 2017). Keeping in mind the gamification of mobile dating and the fact that mobile daters are often judged on their appearances and treated as commodities, it is not surprising that some users complain that interactions remain rather superficial (Hobbs et al., 2017) and their messages unanswered (Zhang & Yasseri, 2016).

Moreover, due to the design of these dating apps, mobile daters might not always be aware or conscious of their actual ghosting behavior. Several studies have noted that respondents have a love-hate relationship with MDAs and thus frequently delete these dating apps from their smartphones (Fitzpatrick & Birnholtz, 2018; LeFebvre, 2018). By deleting these apps, mobile daters disengage from conversations with other users. Tinder, for instance, states on their FAQ-page that users cannot delete individual messages on Tinder, but they can remove entire conversations by *unmatching* someone (Tinder, 2019). This means that when MDA users verbally express their wish to end the relationship, this message might not reach the recipient when the initiator *unmatches* the recipient before that person has had the ability to read the message and thus is left with a former chat or date that suddenly disappeared.

Aside from the ease of ghosting provided by the affordances of MDAs, there might be other reasons why mobile daters ghost, such as other users' undesirable behavior. For instance, both Thompson (2018) and Hess and Flores (2018) conducted a content analysis on famous Instagram pages such as *Tinder Nightmares* and *Bye Felipe* in which MDA users frequently post explicit sexual and racist messages they receive on such apps. Mobile daters might ghost because of sexual harassment afforded by the anonymity of these apps rather than because of choice overload or rejection discomfort. Although LeFebvre et al. (2019) did not focus on ghosting within a mobile dating context, their findings showed that negative interactions as well as those threatening their sense of safety lead people to ghost. Given that mobile daters are often exposed to relative strangers that might portray undesirable behaviors, they might consciously decide to ghost out of safety concerns. As we still know relatively little about mobile daters' ghosting motivations, the first research question is formulated as follows:

RQ1: Which motivations drive mobile daters to ghost?

When it comes to predicting the act of ghosting, the aforementioned literature clearly demonstrates that the affordances of mobile dating apps may elicit ghosting behavior. Hence, we propose the first hypothesis as follows:

H1: Dating app frequency will contribute to a higher likelihood of ghosting others.

Mobile daters' ghosting experiences and coping mechanisms

Previous research indicates that mediated breakups (e.g., breaking up over text messaging; changing the Facebook relationship status) are often viewed as inappropriate (Gershon, 2010; Starks, 2007). Yet, a more recent study on ghosting showed that it might depend on the level of contact and kind of relationship with the ghoster, with ghosting being perceived as more acceptable when no physical contact or intimacy has taken place and the (dating) relationship lasted only 2 days or less (Freedman et al., 2019). Still, while ghosting might be considered an appropriate relationship dissolution strategy in some situations, it is important to note that relationship dissolution often induces strong emotional (e.g., anger, sadness, anxiety) and physical (e.g., loss of appetite and trouble sleeping) reactions (Morris & Reiber, 2011).

Indeed, indirect breakup strategies (e.g., avoidance/withdrawal, mediated) have been described as the least compassionate (Sprecher et al., 2010) and were found to be associated with greater distress following the breakup (Collins & Gillath, 2012). Several fMRI studies show that romantic rejection in long-term relationships activates the pain network (e.g., Cooper et al., 2010; Fisher et al., 2010). More recently, researchers found that even in early dating stages such as the partner selection process, romantic rejection triggers cardiac deceleration. Being judged as “undateable” is interpreted as painful, even when there is no romantic interest in the other person (van der Veen et al., 2019). Additionally, research on social rejection showed that especially when the rejection is unexpected, it is associated with activation in brain areas overlapping with the pain network (van der Molen et al., 2017).

RQ2: What are the consequences of being ghosted and how do mobile daters cope with being ghosted?

What contributes to experiencing ghosting on a mobile dating app as painful?

With regard to experiencing ghosting as painful, some scholars argue that ghosting in an online-only context might be less painful, as these relationships have not required considerable investments from those involved, there has been no physical contact, and opportunities to find other potential partners are still prominent (Freedman et al., 2019; Merkle & Richardson, 2000). MDAs provide a unique context to study ghosting behavior, as it allows for studying ghosting behavior within different stages of relationship formation, ranging from those who are merely in the initiation phase and have been restricted to online conversations only, to those who managed to have actual

committed relationships that also took place in face-to-face contexts. Although it is often presumed that online-only contexts are less painful (e.g., Freedman et al., 2019), it has not been studied which aspects of the relationship or relationship stage can contribute to hurtful ghosting experiences. Aside from the nature of the contact (face-to-face versus online only, short versus long) and the degree of physical intimacy as proposed by Freedman et al. (2019), predictions of Expectancy Violations Theory (i.e., the intensity of the contact and unexpectedness of the ghosting; Burgoon, 1993) may also contribute to experiencing ghosting as painful. Finally, ghosting norms and having experienced ghosting may serve as buffers for painfulness ratings after having experienced ghosting (again).

RQ3: What predicts rating ghosting as a painful experience?

Method

To examine the proposed research questions, we developed a survey which comprised both open- and closed-ended questions related to mobile daters' ghosting experiences. The survey took approximately 20 minutes to complete and was approved by the university's Research Ethics Board. Participation was anonymous and pseudonyms were used to report participants' quotes. Given that we were targeting a specific group (i.e., active MDA users) who would be willing to share their experiences with ghosting, we collaborated with several popular news outlets and magazines in Belgium and the Netherlands to reach a diverse sample of Dutch-speaking mobile dating app users. The information related to the current study was spread through the digital outlets of these newspapers and magazines and their social media accounts. In total, 407 Dutch-speaking respondents participated in the survey. Seventeen respondents were deleted from the analyses because they completed less than 20% of the survey. Of the remaining respondents, 62 respondents never used a mobile dating app and thus were redirected to the end of the survey and did not complete questions related to mobile dating and ghosting. Consequently, 328 mobile dating app users (62.8% females; 86% heterosexuals) remained in our final sample that was used for analyses. Respondents' mean age was 31.68 ($SD = 9.33$; range = 18–59) and the majority of respondents were single (66.5%). Of those in a committed relationship ($n = 74$; 22.6%), people had been together with their current partner for approximately 2–3 years. The remaining 7.9% was exclusively dating with someone they wanted a relationship with and 3% responded *other*.

The majority of respondents used a mobile dating app in the past 31 days (69.2%) and used it on average once a week; 9.5% last used a dating app a couple months ago; and 21.3% last used it more than half a year ago. The majority of respondents used Tinder ($n = 305$), followed by Happn ($n = 110$), Badoo ($n = 49$), Twoo ($n = 46$), OKCupid ($n = 35$), Bumble ($n = 33$), Once ($n = 26$), The Inner Circle ($n = 24$), Grindr ($n = 19$), Plenty of Fish ($n = 6$), Zoosk ($n = 6$), Lexa ($n = 2$), Feeld ($n = 2$), Her ($n = 2$) and Coffee Meets Bagels ($n = 2$).

Respondents were asked whether they had been on the receiving end of ghosting ($n = 279$; 85% of the total sample; $n_{females} = 172$ (61.6%)). These respondents received

open-ended follow-up questions in which they were invited to describe their most recent ghosting experience and what it did to them in their own words. They further provided information on why they thought the other person ghosted them, what made the ghosting experience painful, and which emotions they felt after being ghosted. In total, 217 respondents described their ghosting experience, yet 58 respondents indicated they preferred to keep this information to themselves and were redirected to the next set of questions in which they provided more information on being a ghoster (see below).

Second, respondents were also asked whether they had ghosted another person themselves ($n = 173$; 63% of the total sample; $n_{\text{females}} = 119$ (69%)). These respondents received open-ended follow-up questions in which they were asked why they ghosted mobile dating app users and how they did it. They further provided information on why they decided not to communicate their rejection and which emotions they felt after the ghosting. In total, 142 respondents described their ghoster perspective and 31 respondents indicated they preferred to keep this information to themselves and were redirected to the end of the survey.

For the open-ended questions, thematic analysis was used to code the data (Braun & Clarke, 2006). In the first stage, two researchers got acquainted with the data and with participants' descriptions of their ghosting experiences. Next, relevant data was coded and organized into specific themes. The coding categories were both inspired by previous literature (deductive) but also emerged from the data (inductive) and the data was coded at the semantic level. In the fourth stage, themes were reevaluated and merged or delete where necessary. In the fifth stage, themes were refined and defined and in the final stage, the results section was produced, including relevant quotes related to the themes (Braun & Clarke, 2006). From the ghostees' perspective, three main themes emerged from the data to explain why they were ghosted, with each category containing several subthemes as will be explained in the results section. Additionally, when looking at reasons for being ghosted from the ghosters' perspective, five themes emerged, with each theme entailing different subthemes as will be explained in the results section. Regarding the consequences of ghosting, seven themes were coded that entailed emotional responses and three additional themes described the long-term consequences of being ghosted. Finally, eight themes captured the coping mechanism to deal with being ghosted.

Two coders coded a small subset of data independently and then agreed on an initial coding scheme by combining their codes and agreeing on themes (Corbin & Strauss, 2008). This process was repeated until approximately 20% of the data was coded independently by the two coders and good reliability was reached (Krippendorff's *alpha* for the coding scheme related to having experienced ghosting was .866 and the Krippendorff's *alpha* for the coding scheme related to having ghosted on mobile dating apps was .969). The first author then coded the remaining data. Atlas.ti was used for coding, calculating intercoder-reliability, and analyzing the data. The themes in the open-ended questions are elaborated upon in the results section. First, we discuss the closed-ended questions below. Except for the first questions pertaining to the ghosting norms, all questions solely relate to the most recent situation which respondents could remember they were ghosted themselves.

Ghostee frequency self/others

First, respondents were presented with the definition of ghosting (i.e., someone you met through a mobile dating app suddenly breaks off all contact without explaining why). Then, they were asked to indicate how often they experienced ghosting themselves ($M = 2.78$, $SD = 1.44$) and how often they think others experience ghosting ($M = 3.63$, $SD = 0.58$) on a scale ranging from 0 = *Never* to 5 = *Very often*.

Ghoster frequency self/others

Again, respondents were presented with the definition of ghosting and asked to indicate how often respondents ghosted other dating app users ($M = 2.17$, $SD = 1.59$) and how often they think other dating app users ghost ($M = 3.51$, $SD = 0.88$) on a scale ranging from 0 = *Never* to 5 = *Very often*.

Face-to-face contact

Respondents ($n = 211$) indicated whether they saw the person who ghosted them face-to-face with answer categories *no* (0) and *yes* (1; 52.1%).

Duration of contact

Respondents ($n = 211$) indicated the duration of the contact before the other person ghosted with answer categories (1) a couple hours or less ($n = 9$), (2) a day ($n = 9$), (3) a couple of days ($n = 26$), (4) a week ($n = 32$), (5) a couple of weeks ($n = 77$), (6) a month ($n = 25$), (7) a couple of months ($n = 27$), (8) half a year to a year ($n = 4$), (9) longer than a year ($n = 2$) ($M = 4.77$; $SD = 1.62$).

Intensity of the contact

The intensity of the contact was measured using a scale ranging from 1 = *very sporadically* to 7 = *very intense* ($n = 211$; $M = 4.98$; $SD = 1.42$).

Level of sexual intimacy

A categorical variable was used to measure level of sexual intimacy with responses ranging from none ($n = 136$), mild (i.e., kissing and intimate touching, $n = 25$) and serious (i.e., oral, vaginal or anal sex, $n = 47$). Three respondents did not want to share this information.

Expectancy violation

Two items from Afifi and Metts's (1998) violated expectedness scale were used to measure whether the respondents ($n = 208$) expected the ghosting to occur (1 = *completely expected*; 7 = *not at all expected*; $M = 5.50$; $SD = 1.67$) and how surprised they were that the ghosting occurred (1 = *not at all surprised*; 7 = *very surprised*; $M = 5.38$;

$SD = 1.70$). These items were highly correlated (*Pearson's* $r = .69$; $p < .001$) and had good reliability (*Cronbach's* $\alpha = .82$; $M = 5.44$; $SD = 1.55$).

Painfulness

Respondents ($n = 207$) rated how painful their ghosting experience was (ranging from 0 = not at all painful to 10 = extremely painful; $M = 6.03$; $SD = 2.67$).

Results

As described in the method section, for the first research question, we used thematic analysis to identify emergent themes related to reasons why mobile daters ghost. These were supplemented by a logistic regression analysis in which we looked at factors predicting having ghosted others on dating apps in order to answer the first two hypotheses. Similarly, for the second research question, we used thematic analysis to identify the different consequences of ghosting and the various coping mechanisms of ghostees. Again, these qualitative findings were followed by a quantitative regression analysis to test hypotheses related to factors contributing to experiencing ghosting as more painful.

Which motivations drive mobile daters to ghost? (RQ1)

To fully understand motivations to ghost, we first asked ghostees ($n = 217$) to elaborate on why they thought they were ghosted, which we then contrasted with ghosters' ($n = 142$) reasons to ghost others. For ghostees, three main themes emerged that summarize why they thought they were ghosted as explained below.

Blame toward other (ghoster). A fairly large proportion of the people who had been ghosted ($n = 128$; 59%) blamed the other person for ghosting them. They thought the ghoster was chatting with, dating, or in a relationship with someone else ($n = 60$); they described the ghoster as someone who had "issues" and thus could not commit to the dating relationship at this moment ($n = 43$). Several respondents also expressed their anger by describing the ghoster as someone who is childish, cowardly, lazy, rude, or disrespectful for ghosting them ($n = 29$). Finally, some participants indicated that the ghoster was no longer interested or too busy ($n = 27$).

Blame toward self (ghostee). This theme, observed among 80 respondents (37%), can further be subdivided in three subthemes, with the first one being that respondents were convinced they were not good enough for the person who ghosted them ($n = 72$). They described themselves as not being interesting enough, not being attractive enough, too boring, too fat, ugly, not tall or muscular enough. Second, respondents mentioned that they kept wondering what they did wrong and questioned whether they had said or done something that was not appreciated by the other person ($n = 43$). Finally, in the last subcategory ($n = 4$) a variety of less common individual reasons were given such as

refusing sex during the date, the kind of job they had, or being married and the other person ghosting them when finding out.

Affordances. Finally, a small group ($n = 37$; 17%) also referred to the dating apps themselves as the app made it easier to ghost other people. For instance, Richard (22, heterosexual) indicated that there is *“too much choice: girls on dating apps get a lot of matches and likes, from the moment someone says or does something they do not like, they have enough attention from other boys, this makes it possible to abruptly stop all contact and don’t feel bad about it (distraction from other guys) it feels more and more as a competition to ‘conquer’ people’s interest.”* Some of the respondents also indicated they matched with other dating app users who lived too far apart or were moving and thus this inconvenience afforded by the matching system of the dating apps made them ghost.

Additionally, we asked ghosters to describe their reasons for ghosting others on dating apps. In total, five main themes emerged in the thematic analysis of the open questions related to why mobile daters ghost other dating app users.

Blaming the other person (ghostee). In total, 95 respondents (67%) indicated they ghosted because of the other person. This can be further subdivided in five subcategories. The first category was about the personality of the ghostee ($n = 59$), who was generally described as boring, someone who falls in love easily, or someone with “issues” such as fear of commitment. The second subcategory referred to the ghostee’s undesirable actions and behaviors ($n = 42$). In this subcategory, ghostees were described as being pushy, disrespectful, racist, withholding important information, or sending unsolicited sexual content. Remarkably, some respondents also mentioned they ghosted because the ghostee refused to accept their reasons for rejection and they felt they had no alternative solution but to ghost. The third category is related to the motives of the other person for using a dating app ($n = 15$). Respondents noticed the discrepancy in what they were looking for compared to the other person. As Tina (31, heterosexual) explains *“If I had the feeling that we were in contact because of different motives and the other person was not honest about that, I would immediately cut off all contact.”* The fourth subcategory ($n = 6$) related to experiences of going on a date, which was described as unpleasant, disappointing or not meeting the ghoster’s expectations. Finally, the fifth subcategory contained descriptions of the (unattractive) appearance of the ghostee ($n = 5$).

Blaming self (ghoster). For 62 respondents (44%), the reason for ghosting another dating app user was self-related. This theme comprised three subthemes. The first subtheme was about ghosters wanting to protect themselves ($n = 36$), which they did in three distinct ways. Notably, several respondents mentioned they were afraid of confronting the other person with the rejection and wanted to protect themselves as they feared verbally abusive behavior or even stalking behavior from the other person in case they would more directly reject rather than ghost that person ($n = 26$). Respondents also mentioned they did not feel emotionally ready to start dating or were afraid they could not meet the other person’s expectations ($n = 11$). For some respondents ghosting also provided some sense of control, as they were afraid of the other person wanting to change

their mind or manipulate them back into the (dating) relationship ($n = 4$). This fear was clearly expressed by Lydia (39, heterosexual): *"I just wanted [the relationship] to stop. Without further ado. I did not want to give him the opportunity to change my mind. Probably I also did not want to see it hurt him."* The second subtheme was related to interest in other people ($n = 26$), in which ghosters mentioned they were chatting or dating with other people and forgot about the ghostee. Finally, some participants also mentioned they were too busy to continue conversations with the ghostee or thought it was a waste of time ($n = 14$).

Affordances of the app. A total of 41 respondents (29%) referred to the affordances of the app to explain why they ghosted others. Some referred to the ease of ghosting ($n = 32$). They described it as being easier than directly rejecting another person given the anonymity provided by the app and the fact that there was no shared social network. Others mentioned they deleted the app and thus deleted all their conversations and contacts ($n = 9$). Finally, some respondents also mentioned that the overload of potential partners afforded by the dating app's access to a large dating pool led them to ghost others they were less interested in ($n = 5$).

No obligation to communicate ($n = 31$; 22%). A larger group of respondents ($n = 29$) declared they did not owe the other person anything and that ghosting is part of mobile dating app use, which is related to the idea of mobile dating ideologies as earlier explained. As Melanie (27, heterosexual) explains: *"I don't owe the other person an explanation given that I did not meet this person face-to-face."* Additionally, two respondents struggled with the fact that their reasons for rejecting the other person were not clear. It thus seemed easier for them to ghost rather than to use a direct breakup strategy as this would require giving the other person a reason.

Concern for the other. Directly rejecting others is not easy and some ghosters ($n = 23$; 16%) did not want to hurt the other person by verbally rejecting them. In total, 21 respondents perceived it as being more painful to explain to the other person why they rejected them (e.g., not attractive/interesting enough) rather than to simply ghost the other person. Additionally, three respondents mentioned they ghosted because they did not want to deceive the other person by leading them on and faking interest.

To complement the qualitative findings on *why* respondents ghost, we conducted a logistic regression (see Table 1) to examine H1 and to explore which demographic and situational variables explain *who* ghosts. The overall model was significant, $\chi^2(7) = 32.064$, $p < 0.001$, Cox and Snell $R^2 = .17$, and Nagelkerke $R^2 = .23$ and the model fit was good, Hosmer and Lemeshow test, $\chi^2(8) = 6.57$, $p = .584$. As expected, dating app frequency in the past 31 days was a significant predictor of ghosting others ($B = -.26^*$). However, contrarily to our expectations for H1, the frequency of dating app use decreased the likelihood of ghosting others: For every step decrease in dating app use, the odds to ghost increased with 1.30. Interestingly, gender was not a significant predictor of having ghosted, which means that the odds for women to ghost other dating app users are not significantly higher than the odds for men. Contrarily, age was a significant predictor of having ghosted others on dating apps. For every year

Table 1. Logistic regression analyses for variables predicting having ghosted others (N = 171).

Predictor	Having ghosted other dating app users				
	B	SE B	Exp(B)	p	EXP(B) 95% CI
Constant	1.77	1.13	5.87	.116	
Gender	.30	.36	1.34	.409	[.67, 2.71]
Age	−.07***	.02	.93	.000	[.90, .97]
Sexual Orientation	−.43	.50	.65	.386	[.24, 1.73]
Ghostee Frequency Self	−.09	.14	.92	.530	[.70, 1.20]
Ghostee Frequency Others	.45	.27	1.56	.099	[.92, 2.66]
Ghoster Frequency Others	.21	.26	1.23	.420	[.74, 2.04]
Dating App Frequency (past 31 days)	−.26*	.12	.77	.031	[.61, .98]

Note. Gender (Male = 0; Female = 1), Age, and Sexual Orientation (0 = non-heterosexual, 1 = heterosexual) functioned as control variables.

decrease in age, the odds to ghost increased with 1.08. Participants’ perceptions of others’ ghosting experiences (both in terms of ghosting others and being ghosted by others) were not significantly associated with the likelihood to ghost. Similarly, having been ghosted by other dating app users was not significantly associated with the likelihood to ghost others, yet this could be because only 18 respondents were in the category that never experienced ghosting compared to 153 respondents in the category that had been ghosted.

What are the consequences of being ghosted and how do mobile daters cope with being ghosted? (RQ2)

When analyzing the emotional responses respondents had to ghosting, the majority of respondents (n = 86) reported feeling sad or hurt after the ghosting experience. Other commonly mentioned emotions were feeling angry (n = 65) and feeling disappointed or disillusioned (n = 48). The latter can be illustrated by Lennert’s (25, homosexual) experience: *“I wanted to believe in online dating so badly, but I am starting to question it over and over again. I think people need more education about it, it ruins our human relationships and creates hidden agendas.”* Given that not all respondents immediately realized they had been ghosted, some of them also mentioned they were worried as they assumed something bad had happened to the ghoster (n = 16). Seven respondents felt ashamed that they were ghosted, whereas four felt relieved that they were ghosted as this was a clear indication the other person was not a good fit. Finally, 28 respondents explicitly mentioned they had little to no emotional response to the ghosting experience.

A fairly large proportion of the sample (n = 94; 44%) also noted that the ghosting experience has had long-term effects on their mental health. Respondents mentioned lowered self-esteem (n = 89), distrust in others/the world (n = 20), and, for a small minority, even depression and panic attacks (n = 3). Such findings support the assumption that having experienced ghosting can indeed have detrimental effects on one’s well-being, as clearly illustrated by Esther’s (31, heterosexual) experience: *“We*

would text each other daily, from morning 'til evening and decided after a week to go on a date. The date was lovely, we laughed a lot. He brought me home and we even kissed in the car because it felt so good. After the date he texted that he really liked it and I answered I felt the same way. The next day I did not receive the usual 'good morning' message, he would also not text me during the day. Yet, I noticed on another app that he was online during that day. In the evening I texted something he read immediately but did not answer. Two days later I asked him whether something was wrong, whether I had done something wrong, but he did not answer either. Because of this I felt very insecure, dumped and rejected."

Ghostees report several ways to cope with ghosting. Some people decided to delete the dating app they were using or the ghoster's phone number in case they had it ($n = 10$), others approached friends for comfort ($n = 6$). To interpret the absence of communication, some respondents ($n = 15$) mentioned they checked social media or even reached out to the ghoster's social network to figure out what was going on to then realize they had been ghosted. Sandra (37, heterosexual) explains as follows: "*Right before our second date, when we were discussing where we would meet again, he disappeared from the globe. First, I checked his social media, because I was afraid something bad had happened to him. You never know... but he still posted a lot, so it dawned on me that he would never get back to me. I sent him one more message to tell him he could just tell me what was wrong and it would be over with. But nothing.*"

In addition to Sandra, quite a large group of respondents ($n = 46$) specifically mentioned they needed closure in order to move on from this ghosting experience. They wanted to know why the other person ghosted them before they could actually move on. Therefore, it is not surprising that a total of 33 respondents reported a re-attempt to establish contact with the person who ghosted them. For some of these people this tactic was successful, and they received an answer from the ghoster who would explain to them what happened. Yet, others never heard back or for some of them it even made matters worse, as Alicia explains (22, heterosexual): "*He was very angry and clearly not happy that I called him. I apologized and promised I would not contact him again until he would reach out to me.*"

The coping mechanism that was most often mentioned was rationalizing the ghosting experience ($n = 52$). Respondents consoled themselves by arguing that the ghosting experience had nothing to do with them but rather was part of the mobile dating experience or dating life in general as Roxanne (37, heterosexual) explains: "*It was 'just' a rejection; this can happen in real life as well; the feeling was exactly the same online as offline.*" Others stressed the need to move on in their answers to open questions related to their ghosting experience ($n = 17$), with expressions such as "life goes on" (42, heterosexual), or took more extreme actions such as Miranda (58, heterosexual) who left her job for a music internship right after she had experienced ghosting. Finally, a group of respondents ($n = 18$) mentioned they would adjust their future behavior and expectations on mobile dating apps, suggesting that after a while people might desensitize themselves for future ghosting experiences, which potentially might lead them to ghost others themselves more often as well.

Table 2. Regression analysis with painfulness of ghosting experience as dependent variable for MDA users who experienced ghosting on a MDA (N = 178).

	Painfulness of ghosting experience				
	B	Std. Error	β	p	95% CI
(Constant)	−2.29	1.22		.063	[−4.70, .13]
Gender	−.02	.34	−.00	.960	[−.69, .65]
Age	.01	.02	.02	.778	[−.03, .04]
Sexual Orientation	−.17	.45	−.02	.712	[−1.06, .73]
Ghostee Frequency Self	.62***	.14	.28***	.000	[.35, .89]
Ghostee Frequency Others	.05	.20	.02	.813	[−.35, .45]
Ghoster Frequency Self	−.29**	.11	−.17**	.008	[−.51, −.08]
Face-to-face contact	.89*	.39	.16*	.023	[.12, 1.66]
Duration contact	.38**	.11	.22**	.001	[.17, .59]
Sexual contact D1	.67	.53	.08	.211	[−.38, 1.72]
Sexual contact D2	.23	.48	.04	.627	[−.71, 1.17]
Intensity Contact	.22	.13	.12	.083	[−.03, .47]
Expectancy Violation	.62***	.12	.35***	.000	[.39, .85]

Note. Gender (Male = 0; Female = 1), Age, and Sexual Orientation (0 = non-heterosexual, 1 = heterosexual) functioned as control variables. Sexual contact D1 (nothing vs. mild), Sexual contact D2 (nothing vs. serious).

Predictors of rating the ghosting experience as painful (RQ3)

To add to the qualitative analyses describing the different outcomes and emotions ghostees experience, we conducted a linear regression analysis to examine which factors contributed to experiencing ghosting as painful (see Table 2). The total explained variance of the model was 48.6%; $F(12, 177) = 12.663$; $p < .001$. The more often one had experienced ghosting on a mobile dating app ($\beta = .28$, $p < .001$), the less often one had ghosted others ($\beta = -.17$, $p < .05$), whether one had had face-to-face contact with the ghoster ($\beta = .16$, $p < .05$), the duration of the contact ($\beta = .22$, $p < .01$), and the unexpectedness of the ghosting ($\beta = .35$, $p < .001$) significantly contributed to perceiving ghosting as painful.

Discussion

The current study explored reasons for, consequences of, and ways to cope with ghosting on mobile dating apps, as well as predictors of rating the ghosting experience as painful. First, ghostees were asked to describe why they thought the other person ghosted them. Analyses revealed that more than half of the ghostees blamed the ghoster (59%), more than one third blamed themselves (37%), and approximately one fifth blamed the affordances of the app (17%). Interestingly, similar themes emerged for ghosters who reported on their reasons to ghost, which were (1) blaming the ghostee (67%); (2) blaming the self (44%); (3) blaming the affordances of the app (29%); (4) no obligation to communicate (22%); and (5) concern for the other (16%). Both ghostees and ghosters were most likely to attribute the blame to the other person, yet in both groups a fairly large proportion also put blame on themselves for ghosting or being ghosted.

Next, a logistic regression showed that there was no significant association between the frequency of being ghosted and the likelihood to ghost others. With regard to H1, the frequency of dating app use was not positively but negatively associated with ghosting others. In other words, the more one used a mobile dating app, the odds to ghost others decreased. Whereas the qualitative findings seem to suggest that the affordances of dating apps indeed contribute to ghosting and being ghosted, merely looking at the frequency of dating app use does not seem to be a good predictor to show a relationship between the two. One explanation could be that people who just started using a mobile dating app feel overwhelmed by the large dating pool they suddenly got access to and in some apps also receive unsolicited messages from undesirable dating partners, thereby increasing their chances to ghost. Additionally, given that mobile daters also encounter negative experiences on dating apps (e.g., Thompson, 2018), they might become more selective in their swiping behavior and thereby avoid matching undesirable dating partners in a pre-conversation stage they would be likely to ghost otherwise. However, it is important to note that the explained variance for the proposed model was relatively low with only age and dating app frequency negatively predicting ghosting engagement. It might thus be that other variables measuring dating app use, such as dating app intensity instead of merely the frequency, could yield reverse outcomes. Future research could explore which factors could better explain ghosting others on dating apps.

The second goal of this study was to examine the consequences of ghosting and to explore how ghostees coped with having been ghosted by other mobile dating app users. Several respondents noticed that experiencing ghosting had a detrimental impact on their self-esteem and their trust in others. This conforms to psychological research, which showed that self-esteem can drop when people experience rejection (Leary et al., 1998). This means that when respondents with low self-esteem go through multiple experiences of ghosting, they might experience the rejection as even more painful. Moreover, it might take them longer to get over this painful experience, as people with lower self-esteem have fewer natural opioids (painkillers) released into the brain after a rejection compared to people with higher self-esteem (Hsu et al., 2013). However, it is important to note that some coping mechanisms (e.g., rationalizing the ghosting experiencing by arguing it is part of using dating apps) may prevent dating app users from experiencing lowered self-esteem. Moreover, having ghosted other dating app users may also serve as a buffer, given that those who had ghosted others were also less likely to rate ghosting as painful.

While we did not look at self-esteem as a predictor in our analyses, the frequency of having been ghosted, having had face-to-face contact, a longer duration of the contact, and the unexpectedness of the ghosting positively predicted the degree to which respondents rated their ghosting experience as painful, whereas the frequency of ghosting others negatively predicted the painfulness rating. Surprisingly, no significant associations were found for physical intimacy and the intensity of the contact. It thus seems that having been sexually intimate with the ghoster does not make the ghosting experience more painful. One potential explanation could be the perceived normalization of casual sex among young adults (Timmermans & Van den Bulck, 2018; Wade, 2017), which might lower expectations toward keeping in touch after having been sexually

intimate. However, in the current sample it is not clear whether participants perceived the sexual interaction with their ghoster as casual.

Our findings further revealed that what made the ghosting ambiguous or what kept respondents from moving on after this ghosting experience is that they lacked any form of closure due to this indirect breakup strategy. Therefore, respondents undertook several actions to cope with this ghosting experience such as rationalizing their ghosting experience, adjusting their dating app behavior and expectations toward others or future interactions, checking the social media accounts of the ghoster or reaching out to the ghoster's social network, finding comfort with friends by sharing the ghosting experience, or deleting the mobile dating app and thus refraining from online dating for a while.

One finding that stood out to us was that several ghosters reported they ghosted to protect themselves as the ghostee refused to accept their reason for rejection and started showing aggressive dating behavior such as repeatedly sending unsolicited messages and stalking behavior. Such finding suggests that some individuals may be more likely to be on the receiving end of ghosting compared to others. Romero-Canyas and colleagues (2010) found that people who are rejection-sensitive often show hostility and aggressive behavior when being rejected. Notably, anxiously-attached and rejection-sensitive individuals are also more likely to use online dating platforms (Chin et al., 2019; Correa et al., 2010). Such findings indicate that rejection-sensitivity and anxiously-attached individuals may be more likely to elicit ghosting behavior in others and may also partly explain why ghosting happens often in online dating environments as they are more likely to be active on such platforms. Future research is warranted to further explore these links.

Aside from personality traits, future research could also focus on demographic variables, such as race, ethnicity, and gender. Research has shown that ethnicity may impact the evaluation of a potential date on dating apps such as Tinder (Ranzini & Rosenbaum, 2020) and according to our findings, some ghosters decided to ghost because they thought the other person was racist, thereby suggesting that ghosting experiences may differ depending on the race or ethnicity of users. While additional quantitative analyses within the current study did not find significant gender differences in terms of ghosting others and rating the ghosting experience as painful, we did not focus on gender differences within our qualitative analyses. Hence, future research should take potential gender differences into account when further examining ghosting behavior and experiences.

Finally, while the current study has shown that ghosting can have detrimental consequences for dating app users, it is important that future research does not only focus on negative interactions on dating apps, but also accounts for the positive effects of dating app use. For instance, Utz and Beukeboom (2011) found that for people with high self-esteem, regularly checking their partners' Social Networking Site (SNS) activity significantly predicted both SNS jealousy and SNS happiness. Given that the current study only focused on ghosting experiences, which were rather negative for most participants, less is known about what MDA users consider as positive interactions with other users on these apps. These positive interactions may counter users' negative (ghosting) experiences and with it aid in better explaining as to why users continue to use MDAs.

Conclusion

This study serves as the first to explore reasons for, consequences of, and coping mechanisms to deal with ghosting on MDAs. In fact, the thematic analysis of mobile daters' responses to the open questions proved useful in terms of proposing a theoretical framework related to ghosting on MDAs. When further exploring ghosting behavior and experiences, it could be valuable to determine whether the attribution of blame (i.e., self versus other versus affordances of the medium) contributes to, for instance, experiencing it as painful or increased engagement in ghosting.


Moreover, our study has several practical implications as well. For instance, the insights into mechanisms to cope with ghosting can be helpful for therapists dealing with clients who suffered from one or more ghosting experiences. Our findings show that there are several ways to cope with having experienced ghosting, and some of these seem to be more helpful than others. In an emerging technological world that is characterized by mediated intimacies, it is important to note that rather than attributing blame to the self (e.g., "I was not attractive enough"), therapists can help their clients in understanding that the communication technologies we often use in our daily life also facilitate ghosting behavior, thereby rationalizing the ghosting experience.


Finally, it is important to note that our findings stress a nuanced perspective on ghosting behavior. Ghosters' reported reasons to ghost reveal that ghosting is not always done with bad or harmful intent, but instead is seen as a way to protect oneself from aggressive pursuits. Moreover, this ghosting can even be unintentional, and merely be happening due to the affordances of the apps, thereby holding implications for the dating app industry. Last but not least, it also seems that the practice of ghosting has become somewhat normalized within the online dating environment and online daters hold different opinions related to what constitutes ghosting, with some of them arguing that rejections do not need to be clearly communicated and might even be more harmful to the receivers than the practice of ghosting itself.

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Open research statement

As part of IARR's encouragement of open research practices, the authors have provided the following information: This research was not pre-registered because of its exploratory nature. The data used in the research are not available, but will be made available after publication in the university's data repository.

References

- Affi, W. A., & Metts, S. (1998). Characteristics and consequences of expectation violations in close relationships. *Journal of Social and Personal Relationships*, 15, 365–392. <https://doi.org/10.1177/0265407598153004>
- Banks, J., Westerman, D. K., & Sharabi, L. L. (2017). A mere holding effect: Haptic influences on impression formation through mobile dating apps. *Computers in Human Behavior*, 76, 303–311. <https://doi.org/10.1016/j.chb.2017.07.035>
- Baxter, L. A. (1982). Strategies for ending relationships: Two studies. *Western Journal of Communication (includes Communication Reports)*, 46, 223–241. <https://doi.org/10.1080/10570318209374082>
- Bohns, V. K., & DeVincent, L. A. (2019). Rejecting unwanted romantic advances is more difficult than suitors realize. *Social Psychological and Personality Science*, 10, 1102–1110. <https://doi.org/10.1177/1948550618769880>
- Braun, V., & Clark, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Burgoon, J. K. (1993). Interpersonal expectations, expectancy violations, and emotional communication. *Journal of Language and Social Psychology*, 12, 30–48. <https://doi.org/10.1177/0261927X93121003>
- Carpenter, C., & McEwan, B. (2016). The players of micro-dating: Individual and gender differences in goal orientations toward micro-dating apps. *First Monday*, 21. <https://doi.org/10.5210/fm.v21i5.6187>
- Chan, L. S. (2017). Who uses dating apps? Exploring the relationships among trust, sensation-seeking, smartphone use, and the intent to use dating apps based on the integrative model. *Computers in Human Behavior*, 72, 246–258. <https://doi.org/10.1016/j.chb.2017.02.053>
- Chin, K., Edelstein, R. S., & Vernon, P. A. (2019). Attached to dating apps: Attachment orientations and preferences for dating apps. *Mobile Media & Communication*, 7, 41–59. <https://doi.org/10.1177/2050157918770696>
- Cody, M. (1982). A typology of disengagement strategies and an examination of the role intimacy reactions to inequity, and behavioral problems play in strategy selection. *Communication Monographs*, 49, 148–170. <https://doi.org/10.1080/03637758209376079>
- Collins, T. J., & Gillath, O. (2012). Attachment, breakup strategies, and associated outcomes: The effects of security enhancement on the selection of breakup strategies. *Journal of Research in Personality*, 46, 210–222. <https://doi.org/10.1016/j.jrp.2012.01.008>
- Cooper, J. C., Kreps, T. A., Wiebe, T., Pirkel, T., & Knutson, B. (2010). When giving is good: Ventromedial prefrontal cortex activation for others' intentions. *Neuron*, 67, 511–521. <https://doi.org/10.1016/j.neuron.2010.06.030>
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). SAGE.
- Correa, T., Hinsley, A. W., & de Zuniga, H. G. (2010). Who interacts on the Web? The intersection of users' personality and social media use. *Computers in Human Behavior*, 26, 247–253. <https://doi.org/10.1016/j.chb.2009.09.003>
- David, G., & Cambre, C. (2016). Screened intimacies: Tinder and the swipe logic. *Social Media + Society*, 2, 1–11. <https://doi.org/10.1177/2056305116641976>

- Fisher, H. E., Brown, L. L., Aron, A., Strong, G., & Mashek, D. (2010). Reward, addiction, and emotion regulation systems associated with rejection in love. *Journal of Neurophysiology*, 104, 51–60. <https://doi.org/10.1152/jn.00784.2009>
- Fitzpatrick, C., & Birnholtz, J. (2018). “I Shut the Door”: Interactions, tensions, and negotiations from a location-based social app. *New Media & Society*, 20, 2469–2488. <https://doi.org/10.1177/1461444817725064>
- Freedman, G., Powell, D. N., Le, B., & Williams, K. D. (2019). Ghosting and destiny: Implicit theories of relationships predict beliefs about ghosting. *Journal of Social and Personal Relationships*, 36, 905–924. <https://doi.org/10.1177/0265407517748791>
- Gershon, I. (2010). *The breakup 2.0: Disconnecting over new media*. Cornell University Press.
- Hess, A., & Flores, C. (2018). Simply more than swiping left: A critical analysis of toxic masculine performances on Tinder Nightmares. *New Media & Society*, 20, 1085–1102. <https://doi.org/10.1177/1461444816681540>
- Hobbs, M., Owen, S., & Gerber, L. (2017). Liquid love? Dating apps, sex, relationships and the digital transformation of intimacy. *Journal of Sociology*, 53, 1–14. <https://doi.org/10.1177/1440783316662718>
- Hsu, D. T., Sanford, B. J., Meyers, K. K., Love, T. M., Hazlett, K. E., Wang, H., Ni, L., Walker, S. J., Mickey, B. J., Korycinski, S. T., Koeppe, R. A., Crocker, J. K., Langenecker, S. A., & Zubietta, J. K. (2013). Response of the μ -opioid system to social rejection and acceptance. *Molecular Psychiatry*, 18, 1211–1217. <https://doi.org/10.1038/mp.2013.96>
- Krüger, S., & Spilde, C. A. (2020). Judging books by their covers – Tinder interface, usage and sociocultural implications. *Information, Communication & Society*, 1–16. Advance online publication. <https://doi.org/10.1080/1369118X.2019.1572771>
- Leary, M. R., Haupt, A. L., Strausser, K. S., & Chokel, J. T. (1998). Calibrating the sociometer: The relationship between interpersonal appraisals and the state self-esteem. *Journal of Personality and Social Psychology*, 74, 1290–1299. <https://doi.org/10.1037/0022-3514.74.5.1290>
- LeFebvre, L. E. (2017). Ghosting as a relationship dissolution strategy in the technological age. In N. M. Punyanunt-Carter & J. S. Wrench (Eds.), *The impact of social media in modern romantic relationships* (pp. 219–235). Lexington Books.
- LeFebvre, L. E. (2018). Swiping me off my feet: Explicating relationship initiation on Tinder. *Journal of Social and Personal Relationships*, 35, 1205–1229. <https://doi.org/10.1177/0265407517706419>
- LeFebvre, L. E., Allen, M., Rasner, R. D., Garstad, S., Wilms, A., & Parrish, C. (2019). Ghosting in emerging adults’ romantic relationships: The digital dissolution disappearance strategy. *Imagination, Cognition and Personality*, 39, 125–150. <https://doi.org/10.1177/0276236618820519>
- Merkle, E., & Richardson, R. (2000). Digital dating and virtual relating: Conceptualizing computer-mediated romantic relationships. *Family Relations*, 49, 187–193. <https://doi.org/10.1111/j.1741-3729.2000.00187.x>
- Morris, C. E., & Reiber, C. (2011). Frequency, intensity and expression of post-relationship grief. *EvoS Journal: The Journal of the Evolutionary Studies Consortium*, 3(1), 1–11.
- Ranzini, G., & Rosenbaum, J. E. (2020). It’s a match (?): Tinder usage and attitudes toward interracial dating. *Communication Research Reports*, 37, 44–54. <https://doi.org/10.1080/08824096.2020.1748001>

- Romero-Canyas, R., Downey, G., Berenson, K., Ayduk, O., & Kang, N. J. (2010). Rejection sensitivity and the rejection–hostility link in romantic relationships. *Journal of Personality*, 78, 119–148. <https://doi.org/10.1111/j.1467-6494.2009.00611.x>
- Sprecher, S., Zimmerman, C., & Abrahams, E. M. (2010). Choosing compassionate strategies to end a relationship. *Social Psychology*, 41, 66–75. <https://doi.org/10.1027/1864-9335/a000010>
- Starks, K. M. (2007). Bye bye love: Computer-mediated communication and relational dissolution. *Texas Speech Communication Journal*, 32, 11–21.
- Thompson, L. (2018). “I can be your Tinder nightmare”: Harassment and misogyny in the online sexual marketplace. *Feminism & Psychology*, 28, 69–89. <https://doi.org/10.1177/0959353517720226>
- Timmermans, E., & De Caluwé, E. (2017). Development and validation of the Tinder Motives Scale (TMS). *Computers in Human Behavior*, 70, 341–350. <https://doi.org/10.1016/j.chb.2017.01.028>
- Timmermans, E., & Van den Bulck, J. (2018). Casual sexual scripts on the screen: A quantitative content analysis. *Archives of Sexual Behavior*, 47, 1481–1496. <https://doi.org/10.1007/s10508-018-1147-1>
- Tinder. (2019). *Can I delete a message?* <https://www.help.tinder.com/hc/en-us/articles/115003373963-Can-I-delete-a-message->
- Tong, S. T., & Walther, J. B. (2011). Just say “no thanks”: Romantic rejection in computer-mediated communication. *Journal of Social and Personal Relationships*, 28, 488–506. <https://doi.org/10.1177/0265407510384895>
- Utz, S., & Beukeboom, C. J. (2011). The role of social network sites in romantic relationships: Effects on jealousy and relationship happiness. *Journal of Computer-Mediated Communication*, 16, 511–527. <https://doi.org/10.1111/j.1083-6101.2011.01552.x>
- van der Molen, M. J., Dekkers, L. M., Westenberg, P. M., van der Veen, F. M., & van der Molen, M. W. (2017). Why don’t you like me? Midfrontal theta power in response to unexpected peer rejection feedback. *NeuroImage*, 146, 474–483. <https://doi.org/10.1016/j.neuroimage.2016.08.045>
- van der Veen, F. M., Burdzina, A., & Langeslag, S. J. E. (2019). Don’t you want me, baby? Cardiac and electrocortical concomitants of romantic interest and rejection. *Biological Psychology*, 146, 1–9. <https://doi.org/10.1016/j.biopsycho.2019.05.007>
- Wade, L. (2017). *Amercian hookup: The new culture of sex on campus*. W.W. Norton & Company.
- Yeo, T. E. D., & Fung, T. H. (2016). Relationships form so quickly that you won’t cherish them: Mobile dating apps and the culture of instantaneous relationships [Conference session]. Proceedings of the 7th 2016 International Conference on Social Media & Society (pp. 1–6). ACM. <https://doi.org/10.1145/2930971.2930973>
- Zhang, J., & Yasseri, T. (2016). What happens after you both swipe right: A statistical description of mobile dating communications. *Social and Information Networks*. <http://arxiv.org/abs/1607.03320>