IMPRESSION MANAGEMENT AND FORMATION IN ONLINE DATING SYSTEMS

Research in Progress

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Abstract

Online dating systems are used by millions of people every year to find a romantic partner, yet many of these users report feeling frustrated by the online dating process. This paper presents an interview study in-progress of online dating system use. Findings from 35 users of a popular online dating system in the United States indicate that, contrary to previous research, users typically do not want to deceive their communication partners in order to appear more attractive. Rather, they try to convey the positive attributes they already possess through private communication methods such as site-native e-mailing. Participants also indicate that primary frustrations with online dating stem from not knowing how other daters are interpreting them and why their conversations end abruptly. These findings suggest that some of the misrepresentation found in prior work may actually be unintentional misinterpretation. Together these findings call for additional feedback mechanisms in the design of online dating systems to inform users about their conveyed impressions.

Keywords: online dating, impression management, feedback, online introductions.

1   Introduction

"This one guy called me fat and messaged me with a diet plan. I guess he thought it was funny? It made me feel horrible about myself. I didn't log in [to the online dating system] for a couple weeks because of that." – Ariel, 27

Online dating systems are "Internet services designed to facilitate interactions between potential romantic partners" (Heino et al., 2010). These systems cater to a variety of user needs. For example, Grindr caters exclusively to homosexual men, Christian Mingle to religious-minded daters, and Tinder to mobile users. Adoption of these systems has grown rapidly to the point that online dating is now second only to meeting through friends as the most common way to meet a romantic partner (University of Rochester, 2012). In the United States one out of ten people have used an online dating system, an increase from just one out of thirty in 2008 (Smith and Duggan, 2013). Despite this widespread use, studies suggest that users are frustrated (Frost et al., 2008) with the online dating process. Previous research has suggested that a lot of this frustration is related to a widely held belief that most online daters intentionally engage in deception or exaggerate portrayals of self in order to appear more attractive (Ellison et al., 2006; Gibbs et al., 2006; Fiore and Donath, 2004; Toma and Hancock, 2010; Hall et al., 2010; Whitty, 2008; Hancock and Toma, 2009; Guadagno et al., 2012; Toma et al., 2008; Hancock et al., 2007). However, these studies are predominantly based on information conveyed in profile pages (Fiore and Donath, 2004; Toma and Hancock, 2010; Whitty, 2008; Ellison et al., 2012; Toma et al., 2008; Hancock et al. 2007) and largely ignore other forms of communication between online daters. In this research we are interested in a holistic understanding of how people convey their desired impression and form impressions of other online daters.

The rest of the paper is structured as follows. We first review previous literature to gain an understanding of the online dating process and identify limitations that lead to our research questions. We then present an on-going interview study of online daters and our preliminary findings from 35 interviews. We conclude with a discussion on the implications of our findings for the design of online dating systems.

2   Background

Online dating systems are a subset of social matching systems, or systems that use algorithms to proactively match two strangers together a particularly purpose. In online dating systems, that purpose is for romance. Previous research in online dating systems falls into two main categories: 1) developing algorithms for matching potential partners and 2) impression management of online daters. Given that our research focuses on how people communicate with one another in online dating systems to convey and form impressions, we have limited our literature review to work that revolves around impression management. We specifically hone on attributes used to convey impressions and various forms of communication used to convey impression.

2.1   Impression management

Impression management is the act of self-presentation, an elemental social activity as theorized by Goffman (1959). "Virtually everyone is attentive to, if not explicitly concerned about how he or she is perceived and evaluated by other people" (Leary, 1996). People want to be seen a certain way, and they do that by attempting to convey their desired impression during communication. Research looking at impression management in online dating has mostly focused on deception or misrepresentation of one's self. This work is largely based on Social Information Processing (SIP) Theory, which posits that individuals can take advantage of the reduced cues in computer-mediated communication to selectively self-present, or intentionally misrepresent (Hall et al., 2010). Most

online daters believe other users seriously misrepresent themselves, and online dating research indicates that they are right (Gibbs et al., 2006; Fiore and Donath, 2004; Brym and Lenton, 2001). Yet online daters seldom consider themselves to be deceptive (Ellison et al., 2006; Whitty, 2008). Other researchers have argued that the goal of online daters is to start a relationship in the real world with other daters, and that deception does not help with this ultimate goal. They found that users are indeed less likely to disclose false information when they expect to meet a fellow online dater in person (Guadagno et al., 2012; Toma et al., 2008). In line with this research, studies have found that misrepresentations, rather than outright lies, were often portrayals of an "ideal future self"— exaggerations of existing qualities that the user wants to impress upon other daters (Ellison et al., 2012, Whitty, 2008).

2.2 Searchable and Experiential Attributes

People form and convey impressions using several factors in online dating. Frost et al. (2008) characterize these factors as "searchable" and "experiential" attributes. Searchable attributes are objective, demographic qualities such as height, weight, and hobbies, which can be unambiguously conveyed and verified. They can be filtered and searched for within most online dating systems, similar to how one can search for products on Amazon.com or Ebay. Experiential attributes, on the other hand, are subjective and require communicative exchange to convey (Frost et al., 2008). Prior work has indicated that personality, an "experiential" attribute, is a core component in evaluating attractiveness of potential partners (Finkel et al., 2012; Frost et al., 2008, Guadagno et al., 2012; McCrae and Costa, 1986). However, impression management research in online dating systems has looked almost exclusively at "searchable" attributes of users with very little research looking into how users self-present and evaluate complex, experiential attributes such as personality or sense of humour. In not clear how important these experiential attributes are to impression management compared to their searchable counterparts.

2.3 Communication in Online Dating

Communication in online dating systems occurs both publicly and privately. Public communication is done through profile pages that feature a static amount of information, such as a profile picture, demographic details, and answers to open-ended questions such as "self-summaries." These profile features are common in online dating systems such as Match.com and eHarmony. Users can also communicate privately with one another through private, dyadic conversations. This is typically facilitated with features such as instant messaging, site-native e-mails, and "virtual gifts." Systems such as OkCupid and Plenty of Fish showcase these features. Online dating research has looked at impression management almost exclusively through public profile pages only (Fiore and Donath, 2004; Toma and Hancock, 2010; Whitty, 2008; Ellison et al., 2012; Toma et al., 2008; Hancock et al. 2007). Our understanding of how users adopt other forms of communication to convey desired impressions and evaluate their potential partners is therefore limited, despite research indicating users do indeed utilize private communication methods (Couch and Liamputtong, 2008; Frost et al., 2008). Existing research has been very quantitative in nature that attempted to find patterns in profile content that influence decisions to message a user (Fiore et al., 2010; Whitty, 2008), but this research has not looked at the actual message conversation. It should be noted that some of these quantitative studies used artificial profiles or participants that were not necessarily online daters (Akehurst et al., 2012; Bak, 2010; Guadagno et al., 2012). Data sets from commercial online dating systems have been studied to uncover patterns between profile pages and messaging behaviour, such as that women receive considerably more messages than men, and users tend to message others that are similar to themselves in terms of attractiveness and life course (Fiore and Donath, 2004). The few qualitative studies that exist have looked into self-presentation, but did not distinguish between communication methods available and how their use may differ (Ellison et al., 2006; Ellison et al., 2012).

The above discussion shows that research to date lacks a holistic picture of impression management in online dating, and the accompanying challenges. Only recently has research began to take a more rounded approach to exploring the frustrations users have with communication in online dating (Anon., Frost et al., 2008, Finkel et al., 2012).

3   Research Questions

Our aim in this research is to understand how users convey their desired impressions and evaluate others, with an emphasis on experiential attributes that are not explicitly captured in profile information. In particular, we want to know if experiential attributes are misrepresented or exaggerated as much as searchable profile attributes. Lastly, since the goal of online daters is to meet with other online daters in real life, we are seeking to understand how closely interpretations of experiential attributes match with expectations when online daters meet in-person.

Our research questions are the following:

1. How do users adopt public and private methods of communication in online dating systems to 1) self-present experiential attributes and 2) form impressions of others?
2. Do users face any challenges in using various communication methods that hinder their ability to self-present and form impressions of others?
3. Do users intentionally or unintentionally misrepresent their searchable and experiential attributes? If so, how and why?
4. How do users' perceptions of impressions formed online relate to impressions formed in subsequent in-person meetings?

4   Method

To date, we have conducted 35 in-depth interviews with users of a popular, free online dating system in the United States. The participants were between the ages of 19 and 37, and have been users of the system for time spans ranging from 2 months to 5 years. The chosen online dating system allows public communication through profile pages and private communication through four different methods: asynchronous messaging akin to e-mail (referred to here as "site-native e-mail"), instant messaging, ratings (similar to a Facebook "poke"), and a feature that sets up two random users for a blind date. The system allows users to search for public profile pages based on specific demographic criteria, such as gender, age, location, and ethnicity. This search feature was used to find and message 96 users each week within a 25-mile radius of the lead researcher's location for an interview. These searches were filtered based on gender, location, and ethnicity in an attempt to acquire a diverse pool of interview participants. There are eight different ethnicity choices on the system: white, black, Asian, Indian, Middle Eastern, Hispanic, Native American, and Pacific Islander. With the location criteria remaining constant (within 25 miles), there were 16 different search combinations used for finding interview participants (2 genders x 8 ethnicities). 48 male and 48 female users—the first 6 profiles returned for each search combination—were messaged each week. Users were contacted only once, so if their profile was returned in the top 6 search results in a subsequent week, they were skipped and the next new user in the search results was messaged. Of the 768 users messaged over 8 weeks, 51 responded to message requests for an interview (23 men and 28 women). 35 of these resulted in an interview (16 men and 19 women). 28 identified their sexual orientation as straight, while 7 identified as gay or bisexual. The other 16 responders who were not interviewed had responded merely to decline the interview offer (10), responded with overt sexual advances (2), or failed to respond after a time and location for the interview were suggested (4). 24 of the interviews were conducted in-person at public locations such as coffee shops, 2 in the lead researcher's office, and 9 were conducted online through Skype video chat. The interviews lasted between 28 and 76 minutes and were recorded using a mobile device. Because of our qualitative approach, we cannot

amass a fully representative sample of users of the chosen system. While our oldest participant was 37 years old, the chosen online dating system has no age limit, nor does it necessarily cater to a younger demographic. As such, our findings below may not be representative of all age groups using the online dating system. Grounded Theory was used to analyse our collection of interviews, employing an open coding process to let themes emerge naturally (Glaser and Strauss, 1967). This research in progress reflects on the first three phases of Grounded Theory—open coding, concepts (based on trends found during open coding), and categories (comprised of related concepts). Our findings, to date, reflect categories of concepts that have emerged during these three phases of analysis.

5   Findings

5.1   Active communication is an essential step in self-presenting and evaluating other users before an in-person meeting.

Research indicates that the goal of online daters to is meet fellow online daters in person. Thus, it is important to understand how daters form impressions for making decisions about in-person meetings. Our participants indicated that profile pages alone did not give them enough information for deciding if they want to meet in-person. Rather, all participants needed a combination of public profile and private dyadic communication methods for self-presentation and impression formation purposes. Site-native e-mail messaging was preferred over the other communication methods available for this purpose, and was used by all participants before meeting a fellow dater in person. Matt, 21, described the importance of site-native e-mail: *"I used the blind date thing before, but not anymore. I need to talk to the girl first before meeting up like that. […] I talk to them through messaging, absolutely."*

Furthermore, the content of site-native e-mails was more important than content from profile pages when participants were deciding to 1) respond to an e-mail and 2) meet a dater in-person or communicate with them outside of the online dating system, such as through phone.

> *Jonathan, 30: "The profile only helps me in the beginning, but yeah, it's our conversation [through site-native e-mail] that makes me want to meet him—or run away."*

> *Erica, 28: "I'll give him my [phone] number when our conversation [through site-native e-mail] doesn't have that 'question, answer' feel. When the messages are intellectually stimulating."*

Site-native e-mail messaging was integral for self-presentation and impression formation because participants felt it allowed them to hone on conversation topics and experiential attributes that they deemed most important.

> *Jennifer, 24: "[Site-native e-mail] messaging is so important because I want them to understand my lifestyle. [...] Guys tend to think I'm into casual sex because of my polyamorous lifestyle, so I tend to bring it up a lot."*

> *Mary, 30: "It's all about communication. Like, I'll stop messaging if I'm funnier than you. Sense of humour says a lot about a person."*

5.2   Primary frustrations with the online dating system stem from inadequate feedback about conveyed impressions.

For both male and female participants, the most common frustration in online dating was when conversations through site-native e-mail ended without their communication partner giving a reason. They were not bothered by the possibility that a communication partner may not be attracted to them. Rather, not knowing *why* they were not responding was the most frustrating aspect. Participants

explained that this sudden end in conversation left them unsure if they were properly conveying their desired impression, or how they could improve their behaviour.

> *Ben, 26: "It takes a piece of my soul each time and is by far the most difficult aspect of online dating. You know what I want? A random suggestion box where girls can tell me what I'm doing wrong."*

> *Matt, 21: "Oh my God, just tell me why! It drives me crazy. What did I say? Or was it my profile? I wish I knew what they liked and how they could see the real me."*

> *Amanda, 29: "It happens all the time. I get ridiculously angry when they just stop responding. I tell people all the time it's not going to work out. What's so hard about that?"*

Most female participants received site-native e-mails from men they had discontinued conversation with, asking why they did not respond. These site-native e-mails took up a significant portion of some female participants' inboxes, as Jaime, 24, informs: *"I get about 60-100 e-mails each week. I'd say 25% of those are from guys that send me messages again because I didn't reply the first time."* While not all female participants received as many messages, several were annoyed over this messaging habit.

> *Elizabeth, 28: "Most of these guys can't take a hint. They message me over and over again until I tell them to stop. I tell them why I'm not attracted, and then they want to argue with my reasons!"*

> *Kim, 19: "If I don't respond, they'll message me again and again and again. 'Why aren't you talking to me, baby?' I just ignore it."*

A majority of participants were not aware of the impressions they give off to their communication partners. Most male participants randomly changing their communication behaviour in an attempt to get women interested in them because they were unsure if they were conveying their desired impression.

> *Barry, 24: "I used to send long paragraphs, but now I send short messages where I try to make fun of the girls. Honestly, I have no idea what's working, I just don't want them to think I'm insecure."*

> *Mohammed: "I've tried everything. I started with lines I found on the Internet, then I tried writing poetry to them. Now I'm mixing humor with something personal to show that I've read their profile. I switch between these all the time."*

Some male participants explained that they send "teasing" messages that make fun of a female user or her appearance because they believe these messages convey confidence and humour. Female participants, however, interpreted such messages to be offensive, not humorous, and often led to them leaving the online dating system for extended periods of time.

> *Erica, 28: "I took a two year hiatus because so many men were insulting me about my weight."*

> *Shawn, 21: "I got in argument with a girl one time [through site-native e-mail]. She called me a jerk for something I said, but she had misunderstood me. I wasn't trying to be mean."*

5.3 Users are not confident with the impressions they make of communication partners before meeting in-person.

Participants largely felt the communication methods available in the dating system were limited and even hindered their abilities to self-present and evaluate others, especially in terms of experiential attributes. Difficulty with conveying and evaluating experiential attributes led several participants to

move communication to phone calls, Skype, and in-person meetings faster than they were comfortable with in order to better self-present and evaluate these traits.

> *Becky, 22: "I speak sarcastically a lot. That's just not going to work online."*

> *Amanda, 29: "Email is very artificial, and they can take the time to craft their persona. Now I make them do a Skype video chat. I want to see their conversation skills."*

> *Jonathan, 30: "With both guys that I met, we met up in less than a week [after site-native e-mailing began]. We both thought it would be a lot easier to get to know each other that way."*

All but 4 participants met at least one user in-person from the online dating sites. Participants reported that a majority of first in-person meetings did not result in a second meeting. This was viewed as normal because the first in-person meeting was just another step in impression formation and validation. Participants were sometimes weary that impressions they formed online may be not be accurate, and needed an in-person meeting to confirm what they thought.

> *Rebecca, 23: "I try not to form impressions too much on the site because guys are always different on the site than in real life."*

> *Malcolm, 25: "I've met seven girls. None have gone to a second date, but I was only genuinely excited about meeting one of them. It's normal because sometimes you meet just to get more information. Is there chemistry, you know?"*

Participants said the impressions formed online were found to be incorrect more often than not when validated in-person. Incorrect impressions usually stemmed from experiential (personality) traits.

> *Mary, 30: "I've met 10 guys. Three went to a second date. [...] It's usually personality. They don't feel congruent with their online selves."*

> *Ariel, 27: "About 50% of the time [my impressions] were inaccurate. It's because they talk very differently in real life than they do online."*

5.4 The initiators of private conversation—usually straight men—try to emphasize positive affinities they have with their communication partner.

Our study has so far confirmed the finding from prior research that women of straight sexual orientation receive significantly more messages than straight men. We also found that straight men send significantly more initial messages than straight women. All straight male participants assumed that women receive many messages, so in an attempt to stand out, they felt the need to demonstrate their attractiveness or compatibility with their communication partner as quickly as possible. This was often done through emphasizing experiential attributes or similar hobbies and passions.

> *Kenneth, 24: "If the girl is really attractive, I'm going to spend more time on the message. The hottest girls want a confident guy."*

> *Harold, 24: "I usually ask them about their passions. Like this one girl had pictures [in her profile] of her traveling, so I asked her about it more because travel is a passion of mine too."*

We found no evidence of any participants intentionally misrepresenting searchable/demographic attributes in order to appear more attractive to a particular communication partner. Some male participants even cited female users they were attracted to, but did not message, because they did not feel they satisfied the qualities the woman mentioned in her profile for a desired partner. Responses like the following from Arnold, 24, were typical: *"Oh there were a lot of hot girls that I didn't message. Like in their profile where they say what they're looking for, it is says stuff like 'you should only message me if you're 6 feet tall,' I won't bother."* Only one participant in our study admitted to misrepresenting an experiential attribute. Barry, 24, admitted, *"I started doing online dating because I'm self-conscious and insecure. I want to get better at that so I force myself to message girls and act*

confident." In line with previous literature, Barry's desired impression was one of an ideal future self, in which he conveyed qualities he wished to one day possess.

Bisexual women exhibited a tendency to emphasize their positive affinities with potential female partners, much in the way that our straight male participants did. Emma, 22, described this tendency: *"when it's with girls, I talk differently than when it's with guys. I'll mention something about their profile or appearance. I message a lot of alternative women, so I'll talk mostly about those parts of my life to them."* Straight female participants, on the other hand, did not feel the need to emphasize their attractiveness because they are more often the recipients of initial site-native e-mails. There was also no indication of female participants misrepresenting. Patty, 23, summarized the reasoning given by most straight female participants: *"they'll either like me or not. This is my personality, deal with it."*

6   Discussion and Future Work

Our interviews with several online daters shed interesting insights into how they manage and form impressions online. While our findings broadly lend support to previous research, they bring to light new underlying reasons for the phenomena observed and raise interesting questions. Firstly, in line with previous research our data suggest that users continue to feel frustrated with online dating, but we found very little evidence of intentional misrepresentation (be it by deceit or self-promotional exaggeration). Instead we found that a majority of users expressed frustration with not knowing how other communication partners are interpreting them. This suggests that what we are actually observing may be misinterpretation by a user's communication partner rather than intentional deceit by the user.

Secondly, previous research in online dating has found that the desired impression of most online dating users is one that balances accuracy with self-promotion (Ellison et al., 2008; Ellison et al., 2012). However, it is largely implied in this research that users know *how* to convey these desired impressions. Our research in progress has demonstrated that users often are not aware of how they are being interpreted or if they are conveying their desired impression as intended. This lack of awareness of how one is being interpreted leads them to randomly change their messaging behaviour and repeatedly message the same daters. This leaves both users in a dyadic conversation unhappy, spurring several of them to leave the online dating system for extended periods of time. In Bozeman and Kacmar's (1997) self-regulation model of impression management, people—called "actors"—have a desired impression they wish to convey to their communication partners called a "reference goal." During dyadic conversations, these actors use feedback from their communication partners to evaluate how well they are achieving their reference goal and will "search for alternative tactics to use" if they find they are not being perceived as intended. However, our participants have made it clear that in online dating they are not getting enough feedback about their conveyed impressions to let them evaluate if they are achieving their reference goal. These findings indicate that the design of online dating systems can be significantly improved with additional, more informative feedback mechanisms. In current systems, the only feedback users typically receive about their conveyed impressions are implicit—the lack of a message response implies disinterest, for example. Existing feedback may tell a user the valence of their impression (i.e. if a communication partner likes them or not), but not how these impressions are evolving as communication progresses. If users can receive better feedback about their conveyed impressions, they can learn how to more clearly convey their desired impression.

We plan to expand on our Grounded Theory approach by continuing our derivation of categories based on the concepts that emerge from our data, and beginning the Theory phase. Our current participant sample is narrow in terms of age range because all respondents to our interview request were under the age of 37. We plan to investigate older age groups in future studies to see if our findings are generalizable to users of all ages. Findings at the conclusion of this immediate study are expected to inform the design of feedback mechanisms that can be implemented in social matching systems—of which online dating systems are a subset—to facilitate the communication processes that users undergo after a match is made.

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