# Tinder-ing Desire: The Circuit of Culture, Gamified Dating and Creating Desirable Selves

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# Abstract

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This dissertation starts at intersection of race, gender, and technology, all of which will be discussed in depth throughout this project, and the fluid state of being constituted and being undone by one another. It is in this state of vulnerability that relationships are initiated, through technology that these relationships are shaped and facilitated, and within the constraints of social expectations that these interactions are able/allowed to occur (Duck, 2011). As life becomes more mediated and interactions more facilitated through technological means, focusing on relationships facilitated through dating apps is illustrative of the ways in which mobile technologies are changing the way we communicate with one another.

The introduction provides the theoretical overview of the literature off of which the rest of the dissertation builds its arguments: the importance of interpersonal connections, the positionality of Asian men in the U.S., and the mutual shaping of society and technology, as well

as a justification for a mixed methodological approach to these areas of inquiry. The second chapter looks at the subreddit r/Tinder Profile Review Week thread to see how individuals seek feedback on creating a desirable self and describes how these impression management strategies of Asian men differ from the group which is comprised predominantly by white men. The third chapter uses interview data explore the challenges Asian men face on dating apps face as well as they strategies they employ to create desirable selves and circumvent social and technical barriers. The final chapter draws on the expertise of Asian men who work or have worked in the [video] game industry. They talk about impacts of gamification on mobile dating apps and provides design suggestions for a better, more socially just mobile dating app experience that benefit all users.

**Table of Contents**

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# CHAPTER 1

## Tinder-ing Desire: A Dissertation Introduction

### Introduction: Circuit of culture, Asian men, and dating apps

For this dissertation on mobile dating apps, race, and gamification, I utilize Hall's (1997) Circuit of Culture Model to radically contextualize this project's "theory, its politics, its questions, its object, its method and its commitments" (Grossberg, 1997, p. 1). In doing so, I foreground the role of power and privilege plays in both the production and consumption processes within a sociotechnical system. Specifically, I look at the mobile dating app, Tinder, and straight Asian men who use it. By centering this project on questions of difference, I hope to intervene in the fields of Human Computer Interaction (HCI), Human Centered Design and Engineering (HCDE), Social Computing, and Computer Science and Engineering (CSE). These aforementioned fields often work to build and iterate on new or existing systems but only rarely meaningful consider race or take an intersectional approach.

The Circuit of Culture model consists of the production of the artifact/site/text/practice (which looks at capital and background of the makers), consumption (which engages with users and their practices), regulation (legal and informal rules that govern the production/consumption of the artifact), signification (what the object might represent and how/why that is the case), and identity (the *who* of production, consumption, and regulation), all of which co-create and relate to one another. To make the importance of power explicit, Gajjala (2004) states, "Power relations within communities of cultural practice/material production shape individual, classed, gendered and multicultural subjectivities while in turn, the cultural formations and histories of dominant groups shape the implicit and explicit hierarchical structure of communities of material practice/cultural production" (p. 105-106). That is, while the Circuit of Culture considers

components of culture production/consumption as it pertains to the artifact at hand, the impact of power relations is imbued in and further contextualizes each of these components.

In doing so, this dissertation accomplishes three research goals: 1. To gain a holistic understanding of a phenomenon--Asian men creating desirable selves on mobile dating apps--vis-a-vis the circuit of culture; 2. To create a deepen the justification for studying Asian Americans and Asian men through Asian-centric research, and 3. To provide direction to designing more inclusive solutions that benefits all users of dating apps.

This dissertation is divided into an introductory chapter and three distinct body chapters which are written as stand alone pieces. By organizing chapter content into stand alone pieces, we get a sense of how each component of the Circuit of Culture (i.e., production, consumption, and artifact analysis) operates in isolation. However, because all three components of the model are grounded by this introduction and the conclusion, we are able to draw connections between the areas, which is not possible to do within the scope of an article.

**Why Tinder?**

Tinder is a mobile native, location-based dating apps and is known for its swiping UI that allows users of the app to indicate whether the like (i.e., swipe right) or dislike (i.e., swipe left) the profile they are currently viewing. Users are able to message one another only if they first matched with each other. Matches happen only if two users mutually swipe right, or like, one another. According to Business of Apps, Tinder has 57 million global users in 190 countries and operates in 40 different languages. There are 1.6 billion swipes on the app per day (Business of Apps, 2018). Due to the large number of users and high level of activity, Tinder is a popular app that offers a user a breadth of options. Although Tinder has a reputation for being a hookup app,

users more often use it for entertainment than romantic or sexual purposes (Timmermans & De Caluwé, 2017).

Further, although online dating has been historically stigmatized as being used by users who were unable to find a partner "in real life," research demonstrates that compared to non-users, mobile dating app users are more sociable, outgoing, and open to new experiences (Carpenter & McEwan, 2016). Unlike other dating sites, Tinder profiles are perceived as authentic because the accounts are created through one's Facebook profile, which is often regarded as an accurate, authentic representation of a person (Duguay, 2016). Despite the high user inventory and the perceived authenticity of Tinder profiles, users may suffer burnout as it has been demonstrated that the more time a user spends on the app, the more negative her mood becomes. This might be because swipe activity on Tinder is curvilinear, which means more swipes do not equate to more matches (Curtois & Timmermans, 2018). See Appendix A for the full user journey, and see Appendix B to see an analysis of Tinder's competitor apps (i.e., Bumble, Hinge, OKCupid).

While Tinder's can be critiqued for many things, I focus on its tendency to underscore unconscious biases, which can ultimately lead to racist behavior. This work hopes to build off of the OKCupid dataset that Christian Rudder, co-founder of OKCupid, released first in 2009 and then again in 2014. These analyses are the first and only studies that utilize internal company data to show users' behavioral data and how they prefer some races (white men and women and Asian women) over others. The tables in this study underscored that Asian men have consistently been penalized for their gender and race, whereas Asian women have consistently been rated the most attractive by men of all races (Rudder, 2014). Further, Rudder points out in his analysis that, rather than resolving with the passing of time, racist tendencies have increased in that five-

year time period. To tie this back to Tinder: Tinder is predicated on "mutual" likes. If users who belong to certain racial/gender groups do not receive any likes, they are not able to match with other users, much less attempt to converse and date on Tinder.

**Personal subjectivities and topic selection**

I started my graduate career at the University of Washington immediately after finishing my bachelors at the University of Hawaii. Both of these cities have Asian populations that are considerably higher than the national average. However, upon moving to Seattle, to a graduate program in which I was the both the youngest and only person of color in my cohort, I learned what it meant to be "Asian-American." There were many ways in which this "becoming" Asian-American impacted my life in Seattle as a student, certainly, but also as a young woman seeking to form romantic bonds with another.

In Seattle, I became familiar with the hypersexualization and submissive tropes of the Asian woman, both of which I was unaware of in Hawaii: "I can't date white women, they don't like me," said my white ex-boyfriend of 2 years whilst we were in the midst of breaking up—perhaps my presumed submissiveness made me and the multiple other Asian women it turned out he had been chatting with on Tinder more approachable. "I've only dated one other Asian girl," proudly said a native Seattleite, a "woke" white man with whom I had matched on an online dating site and whose IG "Following" list was comprised mainly East and South Asian women. "You're the whitest Asian girl I've ever met," said a Chinese-American man, who wrote me off I assume, at least in part because of that "whiteness." "Man, those Asian girls are loud in bed," said Joshua, a white male who worked in tech, gleefully to my partner, referring to myself and his girlfriend. I was certain he had no basis to make that statement about me.

From these personal experiences, I became fascinated by the ways in which physical attraction, as it is influenced by visual cues of race, gender, ability, location, and sexuality influenced the outcome of others' and my goals within the context of these different online dating platforms.

Mobile dating apps played a central role in this curiosity as my relationships with each of the individuals whom I mention in the previous paragraph were brokered by those very apps. These mobile dating apps, on the one hand, made it easy for me to engage with other interested parties, but on the other, it added a new dimension of managing a large quantity of matches. This was different than any other type of relationship formation process I had previously engaged in in that it was easy to tell who was interested in me via mechanism of the app (i.e., I was "Liked" or "Superliked" by another user), but it was difficult to discern whether there would be an offline connection. Whereas, in an offline setting, romantic interest in another may develop organically. I noticed myself immediately writing off other users who exhibited what I perceived to be "deal breakers" whereas, IRL, I might have experienced a connection with that person. That connection may have superseded the traits I perceived to be as "deal breakers" on the dating app.

In my early readings of the topic, I sought out scholarly work on Tinder's blackbox to think through invisible rank systems: Users are first ranked by their perceived attractiveness and then shown to others who have similar rankings (Kosoff, 2016). The simple act of dictating the order of which users see other non-self users[1] is misleading as it operates under the impression that all users have equal access and exposure to all other non-self users. To me, this coupled with

[1] Non-self user: This term is used to differentiate other users of the app from the imaged primary user.

the sheer quantity and speed with which the swipe/match process happens can strongly indicate problematic outcomes for those who society do not consider "conventionally" attractive (i.e., expressing European/white standards of beauty). That is, the incredible ease of use with which mobile dating apps like Tinder offer, encourage a type of automaticity whereby users engage in certain behaviors and perpetuate certain unconscious biases, thus further perpetuating social and technological-induced hierarchies.

I continued to conduct pre-work conversations while reading as much of the literature on mobile app designs and other scholarly works on Tinder: Close friends, acquaintances, colleagues, strangers, and students, too, had their own stories of success or mishaps with the relationships they (did not) form through mobile dating apps. The ease and addictive nature of swiping played a large role in the conversations I had. I wondered: What user needs were they trying to meet, and how did the design of the platform function to meet those needs, as those strategies engaged with a sense of aesthetics as well as users' communication strategies? How do unconscious biases that influence swiping and match choices affect users' goal outcomes once a certain threshold is achieved? And, perhaps most importantly, how do different group identities, such a gender, race, ability, and sexuality affect the process of and outcome using a mobile dating app? (See Appendix A for a Dating App User Journey that describes the different emotional state of users who use dating apps).

As I spent more time on various dating apps as both a user and a researcher, I began conducting pre-fieldwork conversations with friends, colleagues and strangers at bars and in Uber Pool rides. Everyone had an opinion on mobile dating apps even if they had no personal experience on it. The overwhelming majority of the people had admitted to at least dabbling on a mobile dating app or site. "I think people use Tinder if they can't find someone in real life" said

many. “Tinder was after my time” said many others who skewed older in age or were in long-term relationships, whereas many students observed, “It’s a good way to meet people” while also emphasizing that they could and did stop using it whenever they were too busy. Students seemed more interested in the social potential of the “hook up” app rather than its romantic or erotic potential. “I don’t put much effort into my profile and only swipe when I’m bored,” said yet a handful more users, who, I think did not want to appear to be dependent on or invested in the app. “I always get matches when I swipe,” my female students and colleagues told me with a confidence that implied they knew that they did well, perhaps better than others, on the app—Tinder, for example, skews male in its user base, so women have more options from which to choose whereas men do not. This coupled with the social expectation that men should reach out and make the move adds to men swiping right more frequently on females than vice versa (Timmermans & Courtois, 2018). While a few people expressed positive sentiment towards digital dating, on the whole most people saw digital dating as useful, perhaps even necessary. However, it was not the channel through which they personally would like to meet their future partners.

During this time, what I found the most intriguing was the perspectives of Asian men. For example, I was surprised to learn of the divergent perspectives of Asian men who were still in a university setting and those Asian men who were slightly older, working in industry. Given the previous research on Asians and dating, which overwhelmingly indicated that all Asian men seemed to do poorly with digital dating (Hwang, 2013; Rudder, 2014), was compelled to look at Asian men as a heterogenous group broken down by various group memberships such as age, ethnicity, and location in relation to their mobile dating app usage.

I noticed, as I continued my pre-fieldwork here in Seattle, the self-deprecating comments of a few Asian men on their profiles: “You don’t like Asian men? That’s one thing we have in common.” “The picture is a lie. I actually have blond hair and blue eyes,” said another. In my personal experience swiping, no men of any other race had acknowledged their race in such a deprecating manner. In the formal interviews I conducted, I listened to the strategies some Asian men employed to distance themselves from stereotypes of Asian men. I noticed that some of them employed strategies that I had read about on online pop-culture resources such as including a picture with friends or gazing off into the distance rather than look directly at the lens of the camera. Others were barely visible in the photos they opted to use: Doing a handstand, more a part of the backdrop than the subject of the photo.

In addition to considering the user behavior of Asians, which helps us to understand pain points and areas of success in the sociotechnical system that is mobile dating apps, I also considered the social constraints which imbue the design of the app. That is, even if users were wily, creative, and cunning in their use of the mobile dating apps, as history has shown users to be with technologies (Winner, 1980), equally important is opening the opaque blackbox of technology that dictates and ranks information, thus thrusting an arbitrary hierarchy onto users (Noble, 2013). The result of these social values which are embedded in the build of the app itself encourages users to create the largest number of possible matches by swiping right on everyone and then, when a match occurs, expend the minimal amount of energy possible with a generic opening line.

For this work, a qualitative approach was necessary in order to make sense of nuanced differences: I utilized existing literature, discussed below, to dive into questions such as: How was it that an Asian woman, such as myself, could have such different results than the Asian men

I had a chance to chat with in my stages of pre-fieldwork? I conducted qualitative interviews to listen to Asian men explain the experiences and to ultimately answer: What common barriers did Asian men collectively share with one another? How did their experiences differ from another? And, perhaps most importantly, how could we use their feedback to effect change in mobile dating apps? This dissertation engages with several different categories of Communication literature, including critical race studies, interpersonal communication, and science and technology studies to undergird the theoretical framework. I utilize a number of research methods for a robust understanding of this area of inquiry.

## Literature Review

In this literature review, I explain the desire humans have to connect to one another, how sociotechnical systems, such as mobile dating apps, act as barriers despite their intention to facilitate connection with one another, and underscore why Asian men may face additional barriers on mobile dating apps compared to men of other races. I then elucidate what is at stake for Asian men (self-esteem). Ultimately, this entire project concludes by providing design suggestions that offset the aforementioned barriers to create a more inclusive mobile dating app. This literature review is organized to provide a high-level, theoretical overview of the conversations going on in the field of Communication and the subfields and interdisciplines into which this dissertation hopes to intervene. More specific literature reviews are detailed in their respective chapters.

### Creating a Desirable Self in Digital Dating Spaces

This dissertation starts at intersection of race and technology, both which will be discussed in depth later in this section, and the fluid state of being constituted and being undone by one another, while keeping issues of power and hegemonic ideologies at the forefront. It is in

this state of vulnerability that relationships are initiated (McKenna, Green, & Gleason, 2002), through technology that these relationships are shaped and facilitated (Shade et al., 2013), and within the constraints of social expectations that these interactions are able/allowed to occur (Duck, 2011). As life becomes more mediated and interactions more facilitated through technological means, focusing on relationships that are facilitated through dating apps is illustrative of the ways in which mobile technologies are changing the way we communicate with and connect to one another (Fitzpatrick, 2012).

Data provided by Pew and other scholarly sources now describe mobile dating apps and online dating as perceived to be an acceptable way to meet potential romantic or erotic partners (Anderson, 2016; Ellison, Heino, & Gibbs, 2006; Ward, 2017). However, much of the research surrounding mobile dating apps, focuses on either on men who have sex with men (See: Blackwell, Birnholt, & Abbott, 2014), general impression management strategies (Ellison, Heino & Gibbs, 2006; Duguay, 2017), or social and psychometrics (Kim, Kwon, & Lee, 2009; Sumter, Vandebosch & Ligtenberg, 2017), and there are exceedingly few studies on race and dating.

Because the goal of mobile dating apps is often to meet up in person (Finkel et al., 2012), self-presentation strategies are not only important, as others will use that information to determine whether to pursue the relationship (Derlega et al., 1987), but they also become a question of strategic performance. That is, one needs to put forth one's best self, as one anticipates what will be desired by the prospective date, as well as one's "true" self (i.e. "authentic" self. See: Higgins, 1987) because the goal of dating apps is to form an offline relationship (Ellison, Heino, & Gibbs, 2006), which might be platonic, romantic, or erotic, depending on the users' goals (Gatter & Hodkinson, 2016). While online dating and mobile dating apps provide individuals with access to a large quantity of potential partners who are

"conveniently laid out" (Gatter & Hodkinson, 2016, n.p.), by design and through social biases, certain groups, particularly groups of difference, may not be able to access the same digital space that provides access to a large quantity of matches. Therefore, by shifting the focus of this project to subjects who do experience social order and hegemonic norms differently than those who possess certain privileges, we are utilizing a different lens through which we come to understand technologies and society. As Judith Butler reminds us, we must talk about gender and sexuality, and when we do, "We mean something complicated by it" (Butler, 2004, p. 19).

It is impossible to say without looking at Tinder's data whether Tinder users have racial preference, or perhaps more accurately stated, whether users are penalized for their race. However, existing data from OkCupid suggests that racial biases not only exist but have intensified over time. If we assume that Tinder too faces similar racial issues, applying concepts of microaggressions helps to elucidate the impacts of racial biases on users: "Microaggressions seem to appear in three forms: microassault, microinsult, and microinvalidation." (Sue et al., 2007). Mobile dating app users of color may face microinvalidations in their pursuit to match and meet up with other users. Microinvalidations are characterized by communications that exclude, negate, or nullify the psychological thoughts, feelings, or experiential reality of a person of color (Sue et al., 2007, p. 274). Mobile dating apps, as a relatively new technology, provide the possibility of new types of microaggressions due to users' unconscious biases.

**Technology and Impression Management**

The primary interest of this project is to discover how Asian men represent themselves on mobile dating apps (vis-à-vis a content analysis of the "Tinder Profile Review Week" weekly post on the r/tinder subreddit and through in-depth interviews of Asian men), a space in which

they have the ability to choose how to manage their dating profile “card”, and then, based on those findings, propose changes to the design of dating apps for more inclusive experience.

Impression management is a set of goal-oriented behaviors, which attempts to control or influence the way others form impressions (Goffman, 1959; Leary, 1996), and online venues provide users with more control over their self-presentational behavior than face-to-face (IRL) interactions (Kramer & Winter, 2008). Historically and presently online forums, such as Reddit, enable users to claim and construct identities because there is a lack a visual and audio cues (Baym, 2002; Pearson, 2009). And in instances platforms require or encourage the user to use photos of oneself, these individuals still have more control of a photo selection which presents them in a way they consider favorable because the asynchronous mediated context (Walther, 2007). Additionally, users need not worry about less controllable non-verbal cues. (Siibak, 2009; Siibak, 2010). Despite the increased ability to present oneself in a favorable manner, the reduced-cues CMC setting of mobile dating apps encourage dyads to engage in interactive strategies (Park & Floyd, 1996; Tidwell & Walther, 2002) and grapple with this issue of which self-presentation strategy to employ in order to meet their goals. Because the goal of mobile dating apps is often to meet up in person (Finkel et al., 2012), self-presentation strategies are not only important, as others will use that information to determine whether to pursue the relationship (Derlega et al., 1987), but they also become a question of strategic performance.

Perhaps due to the convenience and quantity of potential matches, users quickly decide to pursue or ignore potential matches without carefully reviewing the profile (Heino et al., 2010). As a result, this may lead to some users exaggerating their profiles (Ellison, Hancock, & Toma, 2011; Whitty, 2008). Simultaneously, users also risk halting the relationship formation process if their potential match believes that the digital profile was an inaccurate representation (Whitty,

2008). While users attempt to create their own best and authentic self, one of their primary concerns about online dating is the question of authenticity (Gibbs, Ellison, & Lai, 2011). While Tinder's success in the heterosexual market indicates that it is the first mobile dating app that has allayed users' presumptions of extreme disingenuousness or inauthenticity of potential matches (i.e. catfishing) (Dugauay, 2016), users are often on the alert for subtler forms of differences between the digital profile and IRL user.

**Asian Men**

When Peter Steiner's cartoon-turned-meme, "On the Internet, nobody knows you're a dog" (1993) first became popular, society assumed that the Internet would function as a social equalizer in part of because the way it, at that time, embraced anonymity and lacked visual/interpersonal cues (Wolf, 1998). The argument at that particular cultural moment went: For individuals who were different (i.e., not a straight, white, heteronormal male) in regards to race, gender, ethnicity, (dis)ability, etc., this cartoon hopefully implied that they would necessarily be treated fairly online. At present, however, it has becoming increasingly apparent that the way the internet, while affording online support communities (Preece, 2000) and anonymity if one possesses the technical skill (Scott, 2004), is still and increasingly a site of discrimination especially for people who do not fit into white, heteronormative standards (Ebo, 1998; Chun, 2012; Nakamura & Chow-White, 2012; Wolf, 1998). In other words: "rather than the abatement of racism and raced images post WWII, we have witnessed their proliferation" (Chun, 2012, p. 42). Indeed, far from being a space where race and other types of differences are "transcended", the Internet works to maintain these very boundaries and labels that it once was purported to eradicate (Chun, 2012; Galloway, 2012; Nakamura & Chow-White, 2012). In some ways, race—as it is invented and reinvented on the Internet—has become what Foucault might

term “a technology of the self”: Individuals and society use the construct of race (and other lines of difference) in order to categorize, order, govern, and divide themselves, society, and others in ways that mirror society as it exists offline.

Historically, Asia and Asian men have been represented as the opposite of the masculine West, which has lasting impact on how they are perceived to be (un)desirable presently. The conception of the stereotype of Asian men as lecherous but impotent was conceived during the early 1800s in response to Chinese immigration to the West Coast. In the 1840s, the first major wave of Chinese immigrants came to the U.S. to work as laborers on the transcontinental railroad, as gold miners, or as agricultural laborers performing menial tasks (Chan, 2010). During this time, when Darwinism suggested race was a biological concept, we can see the beginnings of Chinese/Asians “Yellow Peril” discourse that eventually led to Chinese Exclusion Act of 1882, the first act that prevented individuals from entering the U.S. on the grounds of race. Historian Igarashi (1998) observes of the rationalization of World War II: “The relationship between the United States and Japan in the postwar melodrama is highly sexualized. The drama casts the United States as a male and Hirohito and Japan as a docile female who unconditionally accepts the United States’ desire for self-assurance” (p. 273). That is, constructs of Asian men and their sexuality are not only mediated in contemporary media, but are and have been transnational and embedded in global history. Within a U.S. context, users who populate Tinder have likely, at least to some extent, been exposed to these ideologies that shape the historical collective perception of Asian men.

Further, we see this sentiment echoed in many scholarly spaces: Said (1979) asserted that Orientalism is the Western imagined idea that homogenizes cultural differences in the feminized East (i.e., Asia and the Middle East) to cocreate the masculine West. Eng (2001) observe that in

western (media) productions (in this case, Puccini's Madame Butterfly), Asian-ness itself is the opposite of being masculine: "Being oriental: the antithesis of manhood, or masculinity? So declares Song Liling to the judge, to the law, under oath, and in a suit… the west thinks of itself as masculine –big guns, big industry, big money—so the east is feminine, weak, delicate, poor" (p. 10). As this statement and its colonial logics pertains to Asian men in media in particular, Asian men are portrayed as "undesirable," "loathsome," and as an "inferior romantic competitor [to be] forgotten or eliminated" (Hamamoto, 1994; Ono & Pham, 2009, p. 64), thus ensuring the racial and gendered hegemony (Winant, 2010) of white masculinity.

Scholars who conduct social scientific research report that society views Asian/Americans in line with media perpetuated stereotypes (i.e. model minority; socially awkward) (Zhang, 2010); Asian men can be perceived as hardworking, industrious, respectful, and undesirable (Mok, 1998); and Asian men who attempt to conform to hegemonic white masculinity (Connell & Messerschmidt, 2005) may face negative mental health consequences, such as depression (Iwamoto, Liao & Liu, 2010). For all of these reasons, it is important to pay attention to the way history and media perpetuate ideas of Asian men, particularly as Asians have a lack of power in mainstream media production and are often presented, if not negatively, than as an additive sidekick to progress the narrative of the white protagonist (Hamamoto, 1994; Ono & Pham, 2009).

**The Proposed Solution**

By utilizing Asian men, a group which has been touted as having the most difficulty on dating sites and apps, this project seeks to create Value Sensitive Design solutions, by specifically addressing "freedom of bias," which is defined as "systematic unfairness perpetrated on individuals or groups, including pre-existing social bias, technical bias, and emergent social

bias" (Friedman, Khan, & Boring, 2008, p. 17). Value Sensitive Design is defined as a "theoretically grounded approach to the design of technology that accounts for human values in a principled and comprehensive manner throughout the design process…. [V]alues cannot be motivated only by an empirical account of the external world, but depend substantively on the interests and desires of human beings within a cultural milieu" (Friedman, Kahn, & Boring, 2002, p. 2). By thinking through inclusive design solutions, it might be possible to readdress some of the conclusions of quantitative studies that suggest Asian men have without critically considering the current design impact of technology.

## Methodology

### The Theoretical Approach

This dissertation pulls from various paradigms, each with their own strengths, to create a balanced methodological approach to this project (see: Figure 1) and is explained in depth in the paragraphs below. Briefly, the mission of Critical Cultural Studies (from the Frankfurt School) of emancipating groups that are oppressed by toxic power imbalances informs everything that follows in Critical Realism as well as Grounded theory. Critical Realism belongs to the post-positivistic paradigm and asserts that the co-existence of explanation/causation (i.e., positivism) and interpretation/hermeneutics (i.e., interpretivism) is possible by socio-historically contextualizing an inquiry.

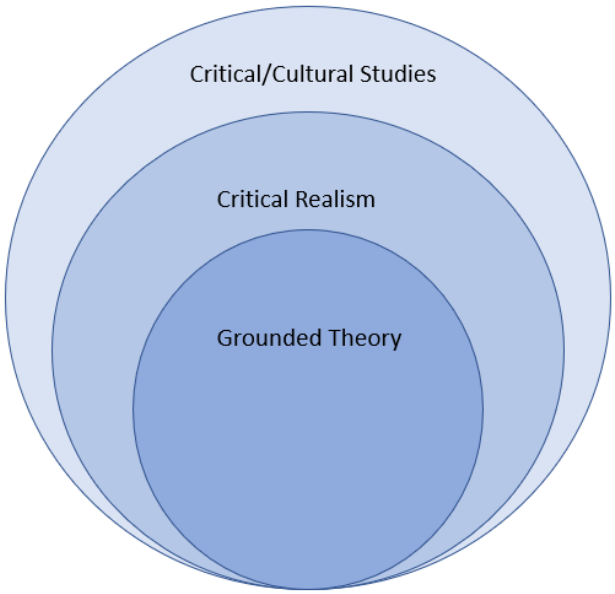


*Figure 1: Theoretical model for this dissertation methodological approach wherein critical/cultural studies informs the paradigm (i.e., critical realism) and the two aforementioned categories undergird the project's approach in grounded theory.*

**Cultural Studies**

Cultural studies have been characterized as a "renegade" or "outlaw interdiscipline" (Schwoch & White, 2006, p. 3). Its work is "radical" in nature and its goal is to "rupture" boundaries (Haraway, 1991) to create sites of resistance (Kellner, 2003). It has had a tendency to avoid explicit discussion on methods because of its "conscious dissociation from established academic disciplines" (Pickering, 2008, p. 1). The goal of cultural studies, as suggested by is one of emancipation (Miller, 2004) or invention (Grossberg, 2009). This goal is accomplished by examining cultural practices as they are situated in particular social, historical, geographical, and political contexts. By examining culture as a site of power production and by understanding power, not necessarily as dominating as some cultural scholars do (such as Kellner, 2015), but rather as an "unequal relation of forces," it is possible to adjust the context of power (Carey, 1992).

According to critical/cultural studies scholars, there appears to be two primary ways to dismantle power structures: The first is one of rupture and radical change. Feminist Audre Lorde is known for famously stating, “For the master’s tools will never dismantle the master’s house,” and scholars such as Haraway (1991) agree. The figure of the cyborg and its hybridity call to attention the necessity of a rupture and the resulting messiness as a way to challenge the smooth, seamless power structures that constrain society. Galloway (2004) offers “protocol” as an alternative, which is less radical that the point of “rupture,” but in some ways, more effective. That is, “Protocol is a technique for achieving voluntary regulation within a contingent environment… While protocol may be more democratic than the panopticon in that it strives to eliminate hierarchy, it is still very much structured around command and control” (p. 13). This, of course, begs the question: If protocol is a technique for regulation and is structure around command and control, how does it offer the opportunity for emancipation or intervention? The answer is also protocol based. Protocols are directions that “encode packets of information so that they might be transported” (p. 7) and organized, and because of their highly formal nature, protocol are indifferent to the information that has been encoded in the technical directions. To make changes in unequal power structures, then, is to encode a specific type of action into the direction itself. Galloway likens this to placing a speed bump in the road, a material object that forces speeding cars to slow down. It forces a change in the system. Because cultural studies is constantly being redefined in relation to historical, social, political, economic, geographical, and intellectual conditions (Grossberg, 2009; Hall, 1992; Kellner, 2015), this protocol approach can take advantage of these ongoing shifts by constantly issuing new directions. In my own work, both the moment of rupture and radical change as well as the more subtle iterative protocol

approach are useful in creating change. I suggest that the protocol approach, although it fully utilizes the "master's tools," can still dismantle the master's house.

While there have been a number of critical/cultural studies scholars (Ang, 2001) who push for, in the words of McRobbie (1997), the "Three E's:" The empirical, experiential, and ethnographic (i.e. traditional qualitative), if cultural studies is meant to be radical in its orientation, what, at this point in cultural studies literature, is more radical than employing quantitative methods as a way to talk about and explore power? What is more renegade than an embracing of quantitative scholarship, not as a way to fit in to the status quo, but to radically subvert it, so that cultural studies does not become immune to itself? In addition to being its own analytic, I propose that cultural studies can be used as a lens of analysis as a complement all other research paradigms, including quantitative work. This is because cultural studies is able to look at issues on a systemic basis and the systemic issues are evident on the individual, group, and social level. Although quantitative work often is associated with the post-positivist research paradigm, nothing precludes quantitative work from being yet another tool cultural studies scholars might employ to further its goal of emancipation (Pickering, 2008, p. 9).

Specifically, I utilize Hall's (1997) Circuit of Culture Model to radically contextualize this project's "theory, its politics, its questions, its object, its method and its commitments" (Grossberg, 1997, p. 1). This model consists of the production of the artifact/site/text/practice (which looks at capital and background of the makers), consumption (which engages with users and their practices), regulation (legal and informal rules that govern the production/consumption of the artifact), signification (what the object might represent and how/why that is the case), and identity (the *who* of production, consumption, and regulation), all of which co-create and relate to one another. To make the importance of power explicit, Gajjala (2004) states, "Power

relations within communities of cultural practice/material production shape individual, classed, gendered and multicultural subjectivities while in turn, the cultural formations and histories of dominant groups shape the implicit and explicit hierarchical structure of communities of material practice/cultural production" (p. 105-106). That is, while the Circuit of Culture considers components of culture production/consumption as it pertains to the artifact at hand, the impact of power relations is imbued in and further contextualizes each of these components.

**Critical Realism**

Critical Realism is a meta-theory of social scientific research, and this research paradigm informs my approach to this dissertation project. Critical Realism is a commitment to establishing a true post-positivist paradigm that provides space for the co-existence of explanation/causation (i.e., positivism) and interpretation/hermeneutics (i.e., interpretivism), and combines transcendental realism "in order for scientific investigation to take place, the object of that investigation must have real, manipulable, internal mechanisms that can be *actualized* to produce particular outcomes" (Bhaskar, 2013, n.p). Critical naturalism argues that the transcendental realist model of science is equally applicable to both the physical and the human worlds. However, when we study the human world, we are studying something fundamentally different from the physical world and must, therefore, adapt our strategy to studying it (Bhaskar, 2013). Traditional positivism focused on the epistemic—how we know what we know—at the expensive of ontology, the nature of the being/known. Critical realists—which include "Marxists, Bourdieusians, Habermasians, Latourians, and even poststructuralists" (Archer, 2016)—believe it is possible to refine knowledge about the "real world" by acknowledging the historical, contingent, and changing nature of it. Critical realists bring together interpretivism and positivism by socially and historically contextualizing their inquiries.

Notably, critical realism differs in its intellectual genealogy than critical theory. In the case of critical theory, the Frankfurt School's goal was "to liberate human beings from the circumstances that enslave them" by a constant radical contextualization of the process of inquiry and research findings. Both critical realism and critical theory see meaning as socially constructed; however, critical theorists see these as local manifestations rather than broad generalizations. This type of intense scrutiny and contextualization is necessary for change.

**Mixed Methods and Grounded Theory**

A mixed method approach was necessary to fill in the gaps of race-based inquiry within Human Computer Interaction (i.e., mobile dating app) scholarship. For this study I used a combination of participant-observation to learn about dating apps, in-depth interviews to talk to other users, competitor analysis (Note: See Appendix B for full analysis and general description of dating apps) to examine the difference affordances and constraints of the variety of dating apps, and a content analysis to determine how people talked about their Tinder profiles. The goal of engaging in mixed methods research is to take advantage of the strengths and minimize the weaknesses of each paradigm and produce superior research (Johnson & Onwuegbuzie, 2004). Therefore, a variety of qualitative work is able to take into consideration participants subjectivities, local contexts, and produce in-depth data. Additionally, while the merits of pragmatism have been underscored particularly as a solution to the paradigm wars (Johnson & Onwuegbuzie, 2004), scholars have neglected including humanistic methodologies in their discussions. This might be in part because of cultural studies marginalized position in the academy (Morley, 2006) and in part because of its reluctance to be subsumed by these more traditional paradigms (Pickering, 2008).

This project intends on utilizing Grounded Theory Method so that the researcher is held accountable for staying close to her data and creating her analyses from the data itself rather than preexisting hypotheses. Grounded theory method (GTM) is a multistage process which utilizes abductive logic to generate theory and is one of the most influential and widely used modes of qualitative research (Strauss & Corbin, 1997). The process, begins with data collection and/or data immersion and employs inductive reasoning to generate theory. Afterwards, the theory is further developed through deductive logic (Oktay, 2014). It encourages the researcher to stay closely involved with emerging analyses (Bryant & Charmaz, 2007). GMT was progenated by Glaser & Strauss' 1967 book *The Discovery of Grounded Theory* in order to "clos[e] the embarrassing gap between theory and empirical research" (p. vii). Qualitative interviewing which uses grounded theory analysis starts from the data to create conceptual categories, which "keep[s] us close to our gathered data and compel us to question our assumptions and set aside our presuppositions to see past them" (Charmaz & Belgrav, 2012, n.p.). This method and form of analysis provides a different approach to the traditional post-postivistic approach (i.e. deductive approach) to data analysis that only happens well after predictions (i.e. hypotheses) have been formed.

**Proposed Project Sample**

There are both pragmatic and theoretical benefits of utilizing Asian men as the sample. Pragmatically speaking, there are certain stereotypes of Asian men that would make their experience on mobile dating apps perhaps more precipitous than other users. In quantitative fields, the most expected approach to research is deductive. That is, a top-down approach where the most valued work deals with a sample, or, in the era of big and complete data, the actual population so that the findings are able to be generalized or make an accurate statement of the

entire given population. However, this provides only one type of perspective to any given phenomenon. From a deductive perspective, it is necessary to start with a single phenomenon or specific sample (i.e., Asian men) and then work one's way to more generalizable statements.

For example, Asians, both men and women are considered to be hyper-feminized, which leads to women being extremely desirable, but Asian men undesirable. Therefore, Asian men may have the least success on the mobile dating app, which puts them in a unique position to offer critique on the app. However, the general issue of engagement applies to everyone. All of their problems and solutions center around problems all users face and can benefit from, respectively. For example, the issue of matching: all users likely want more and or better matches.

## Chapter Outline

In order to have a truly robust, deeply contextualized topic of inquiry, cultural studies scholars have proposed a tri-faceted approach to an area of inquiry (Kellner, 2012; Hall, 2012) It includes critically engaging with 1. The audience, who practices agency and creativity, though not without significant barriers, in their consumption and engagement with the artifact; 2. The political economy or the logics of cultural production and distribution; and 3. A textual analysis of the artifact. Therefore, seeking that comprehensive understanding into a phenomenon, this dissertation's structure follows this tri-faceted approach.

### Chapter 2: Tinder Profile Review Week: A Content Analysis of Race and Gender on Reddit

I open with a content analysis of one of the Tinder Profile Review Week posts on the r/tinder subreddit, which serves as the "textual analysis" of the cultural studies approach. On this thread, users solicit feedback on their Tinder profiles for various reasons, although the most

prevalent reason deals with users' dissatisfaction with the lack of matches they receive on Tinder.

For this study I use a Python script to download all posts, and I manually code all posts that include screenshots of the user's Tinder profile (n=140) as well as all respective responses (n=793 responses) to the post. Literature (Barthel et al., 2016), pilot tests, and the primary study reveal that men comprise the overwhelming majority of users who post their Tinder profile for feedback (n=135). Further, analysis show that the majority of these men are either white (76%) or Asian (14%). Interestingly, Asian men are overrepresent in this space as they comprise 5.6% of the U.S. population. Further, they differ from the group average in certain impression management strategies. For example, Asian men smile more frequently (82%) than the average (67%) in their photos. In regards to responses to posts, responses were categorized as productive/unproductive feedback and positive/negative/neutral sentiment. While the numbers suggest that Asian men do not notably differ from the group averages in the types of responses they receive, a deep read of the comments illustrate that Asian men received overtly race-based feedback that was not present for any other racial group.

**Chapter 3: Location of Love: West Coast Asian Diaspora, Mobile Dating Apps, and Creating Desirable Selves**

The third chapter of this dissertation leads with the Asian males who use mobile dating apps (i.e., the "audience"). Asian men have been reported to fare poorly on digital dating sites when compared to other race and gender combinations (Balistreri, Joyner, & Kao, 2015; Rudder, 2012). As such, this chapter builds off of the previous chapter by more deeply considering the social structures that inform racial hierarchies while asking the questions: What are Asian men's

impressions of mobile dating apps? What are their experiences like on mobile dating apps? What strategies do they employ to create effective profiles?

This chapter builds on a plethora of work from various fields: As previously established earlier in this introduction, Asian men have been reported to do more poorly on mobile dating apps. This chapter focuses on providing more nuance from Asian men themselves. Additionally, although other studies talk about gender and physical attractiveness as having major impact on a users' success and self-esteem, findings for this study show that location and age are factors that have an impact on a user's success on the app. Users, for example, utilize their creativity and resourcefulness to create a sense of success on an app or bypass limits of one app by using multiple apps to increase their total number of likes, or to search beyond the limited geography/bypass Tinder gold's paywall.

I interviewed (n=20) Asian men who either currently use or previously used mobile dating apps utilizing structured interviews. In this chapter, I discuss a number of key barriers that Asian men face and strategies Asian men utilize to maximize their investment in the dating app. I additionally cover caveats such as: First generation, 1.5 generation, and second generation users in particular focus on using similar dating apps based out of Asia and report a much higher level of success on those apps. Finally, the way participants talk about race as a neutral, positive, or negative way appeared to be correlated with age (i.e., college student or not) and location, that is users in Hawaii are neutral/privileged as it comes to race as they do not bring it up in their conversations with me. Users in LA have the most varied responses, but on the whole all users were aware of race and did not speak of it as a drawback. Finally, users in Seattle were broken up into two groups: Students and working professionals.

## Chapter 4: Gamified Dating: A Critical Design Approach to Gamified Dating and Ethical User Retention and Engagement

The third chapter of this dissertation builds directly on the preceding chapter and focuses on production, questions of ethics in design values, and pragmatic solutions to the issues users bring up in the previous chapter. I focus on gamification strategies as Tinder, one of the dating apps with a large user base, utilizes these strategies to increase user engagement and retention. However, as scholars have long noted, increasing profit or engagement by any means necessary may not be ethical. One example of this in Tinder's UI design is the ways in which designers attempt to minimize cognitive loads of users at all costs. Tinder founder Sean Rad likens the "swiping" gesture of Tinder to the swiping the top card off the deck to gamify the binary decision of deciding to like or reject another user. However, this means, in the case of dating apps, that users may be perpetuating unconscious biases. Even if users think they are assessing a user based on physical attractiveness, perceived physical attractiveness is often influenced by race. By implementing ethical, and value sensitive designs, experts think through ways to offset these issues.

Because the issues discussed in the previous chapter were brought up by Asian men, the team of industry experts (n=10) that I interviewed for this chapter were also Asian men who had the added responsibility for engineering solutions that were beneficial to all groups of users. Interviewees illustrate the ways in which mobile dating apps are gamified, then talk about the ethical issues with which they hold at the forefront of the conversation as they think through ethical design features that would be easy to implement. The benefit of interviewing experts for solutions is that they are aware of feasibility issues and are able to come up with actionable solutions.

# CHAPTER 2

## Tinder Profile Review Week: A Content Analysis of Race and Gender on Reddit


### Abstract

This content analysis describes the demographics of the r/Tinder Profile Review Week thread on Reddit, the types of masculinity performances of those seeking help, and the tone of productivity of the replies. Findings show that those who solicit feedback on this thread are predominantly white and Asian men. The men who seek help generally have well-rounded profile pictures that do not necessarily engage in traditional gender messaging. Likewise, the comments are generally productive in their feedback. Therefore, while this is a heteronormative male dominated space, that these men are seeking help and willing to put up their online dating profiles for an honest critique suggests an openness and willingness to be vulnerable. Asians perform desirability differently than the group—in ways that speak back against Asian stereotypes, such as the model minority stereotype—and appear to receive positive feedback. However, upon a deep read of the comments, we see that Asian men, unlike other racial groups, deal with feedback that is overtly racist.

## Introduction

According to the Amazon owned internet ranking site, Alexa Internet (not to be confused with Amazon's voice-assistant, Alexa), as of early 2019, Reddit, a content/new ranking and aggregator site, is ranked 17th most popular[2] website globally and is the 6th most popular site in the U.S. Despite its domestic popularity, Reddit the social-news and community site has been noted to be predominantly comprised of users who have completed university and identify as white, male, and are younger in age (Mitchell et al., 2016) as well as scrutinized for promoting "toxic technocultures" (e.g., #gamergate[3] and The Fappening[4]) from within its very algorithms, design, and governance (Massanari, 2015). Bearing in mind these factors, one might assume Reddit would be a space ill-equipped to encourage help-seeking behaviors. However, this does not seem to be the case universally across Reddit. This paper examines the r/Tinder subreddit thread which is predicated on giving social support and constructive feedback for users seeking to improve their Tinder profiles.[5] It seeks to determine how, if at all, men are using this space to seek help and how these behaviors and responses differ by race.

I seek to answer these questions because critics of contemporary cultural narratives of race and masculinity underscore the ways in which men of color—this study looks specifically Asian men—struggle with openness and vulnerability, and, as a result, may both challenge and

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[2] Determined by page views and visitors.

[3] Referring to, among other things, to the controversy around feminism and progressivism in video games. Women were largely the target of this.

[4] Where a number of "sexts" and images of/between celebrities was released online.

[5] Improvement is often conceived as increasing matches or going on more dates.

engage in acts of hegemonic/toxic masculinity, which includes things such as not seeking help or deriding those who engage in acts such as seeking advice (Bridges & Pascoe, 2014; Connell & Messersschmidt, 2005). Additionally, this content analysis provides empirical insights to the state of Asian men on mobile dating apps. Despite a number of studies that look at hegemonic masculinity and race in offline or mediated contexts (Burke, 2016; Goody, 2017; Majors, 2017; Park, 2015), or a number of studies that look at hegemonic masculinity and online dating focusing on men-who-have-sex-with-men (MSM) (Burke, 2016; Miller, 2018; Miller & Behm-Morawitz, 2019; Reynolds, 2015),[6] scholars have not yet fully explored the impacts of online spaces, masculinity, heterosexuality, and race. In other words, the findings of this content analysis will provide insight to the culture of a popular online forum as it is raced and gendered while bearing in mind sexual orientation. After determining how hegemonic masculinity is or is not being perpetuated, it is possible to reflect on the implications for white men and men of color who are seeking support in an online context.

This chapter uses a content analysis of the subreddit r/Tinder's Profile Review Week to see 1. How individuals create desirable selves; 2. How these impression management strategies differ by race; 3. How users respond to those who seek help; and 4. How those responses differ by race. While acknowledging the white, educated, male skew of Reddit (Barthel et al., 2016), this chapter poses the question: Who is asking for Tinder Profile help? How do they perform masculinity and desirability in the Tinder profiles for which they seek feedback? What type of

[6] This is likely because the LGBTQ community has welcomed and relied on online dating more than their straight counterparts.

replies are the receiving? And, most integrally to the project, do Asian men differ from the group? If so, in what way?[7] I elucidate the ways in which Asian men perform desirability in ways that directly address Asian stereotypes and how, in order to get productive feedback on their dating profile, they engage in additional labor of explicating their decisions to select, for example, certain bios or photos.

## Literature Review

### Online Impression Management Strategies

Impression management is pivotal to this chapter as gives us a framework through which we can understand performances and desirability on a primary photo-driven mobile dating application. As the title of this dissertation suggests, sparking or tinder-ing desire on a mobile dating app comes down to one's visual impression management, which will be explored here in this and subsequent chapters, and to the creation and the design of the technology itself, which will be explored in depth in future chapters.

As previously discussed in the introduction of this dissertation, impression management is a set of goal oriented behaviors, which attempts to control or influence the way others form impressions (Goffman, 1959; Leary, 1996), and online venues provide users with more control over their self-presentational behavior than face-to-face (IRL) interactions (Kramer & Winter, 2008). Dating sites and apps require a "new literacy of self-presentation, one that reinforces and re-inscribes the tendency toward promotionalism that permeates contemporary social life"

[7] Two pilot tests conducted previously made clear that Asian men did differ from the group average. This chapter delves in to the "how" and endeavors to provide possible explanations for the findings.

(Fullick, 2013, n.p.). Users attempt to gain information about the other party in order to anticipate what type of response to give (Ellison et al., 2006; Siibak, 2009). On online dating sites, men and women tend to present themselves in the ways they perceived to be desirable: Men have been found to traditionally exaggerate income and height, whereas women lie about their weight (Toma & Handcock, 2010).

Although both men and women have been noted to exaggerate, research also indicates that authenticity and non-gendered messaging (i.e., not performing traditional gender roles), especially for men (Jackson, von Eye, Fitzgerald, Zhao, & Witt, 2010; Sedwick, Flath, & Elias, 2017), greatly increase the chances one has of matching with another. In the case of Tinder, unlike online dating sites, such as OkCupid, Match.com, eHarmony, among others, Tinder profiles puts more emphasis on photos. Information such as height, weight, and income are less impactful than photos that users select to use—some Tinder users do not include any text with their profile photos (Ward, 2017). Visual materials give important information about the identity of the profile owner, and Siibak (2009) noted the top criteria include 1. I look good in the photo; 2. Photo is taken in beautiful surroundings; 3. Photo looks good in general; 4. My friends/family/acquaintances accompany me in the photo; 5. Photo commemorates an important moment in my life; 6. It reflects my personality; 7. Good photo-processing; and 8. Interesting activity shown in the video (n.p.). Some of these criteria may be more difficult for certain groups of users to meet than others. For example, the number one criterion, “I look good in the photo” presents issues. Perceiving that oneself looks good is a self-concept that depends on media messaging, self-esteem, and, especially in the case of dating apps, positive feedback (e.g., likes) one receives on the platform. This can be problematic because it has been established that self-esteem decreases the longer one is on a dating app, and because fidelity to authentic

representations is positively correlated with self-esteem (Ranzini & Lutz, 2017), the ability to present an authentic self may be hindered by a decrease in self-esteem (Ranzini & Lutz, 2017). This creates a cycle of exclusion: Those who receive feedback that they are desirable on dating apps (Ward, 2017), maintain or increase their self-esteem (Timmermans & Courtois, 2018), which in turns encourages authentic expressions of self (Duguay, 2017). On the other hand, for this precise reason, men of color who do not possess European signifiers of attractiveness are at risk of receiving fewer matches (Rudder, 2014; Strubel & Petrie, 2017), they may feel a particular pressure to engage in forms of hegemonic masculinity as a means of offsetting any social biases against their race (Bridges &Pascoe, 2014; Katz, 2013), and thus continue to struggle to get matches.

However, Asian men are also in a unique position, as they are poised to transform these notions of toxic masculinity by offering examples of greater sensitivity, gentleness, and egalitarian relationships (Andronico, 1996; Shimizu, 2012). For example Shimizu (2012) writes, "the perception of asexuality, effeminacy, and queerness as racial emasculation is met with demonization" (p. 3) and goes on to argue that rather than demonizing these traits, which reinforce hegemonic and toxic masculinity, we should look to (representations of) Asian men as a means of transforming hegemonic masculinity into a healthy masculinity. On the other hand, historically, research around race and masculinity argued that men of color may feel more pressure to engage in acts of toxic masculinity in order to "compensate" for their race and to be perceived as "masculine" (Hyunh & Woo, 2014; Katz, 2014) in real life. The same holds true in online space: There are significant differences between gender in performing "gaze, posture, dress, and distance from the camera" in online spaces, and these differences are especially pronounced for men of color (Kapidzic & Herring, 2014, n.p).

## Reddit and Online Communities

Online communities, which Preece (2001) defines as "any virtual social space where people come together to get and give information or support, to learn or find company" (p. 348), have been shown to have both positive and negative impacts on users. However, these online communities also have been perceived as equalizers—erasing the visual cues of difference and providing an equal distribution of information to all. For the LGBTQ community, a group that uses and has used the internet's online communities to "access resources, explore identity, find likeness, and digitally engage in coming out," online spaces inextricably linked to identity formation (Craig & McInroy, 2014, p. 95; Fox & Ralston, 2016; Shaw, 1997; Woodland, 2000). Mothers use online communities to elevate their own voices and concerns and to engage in support and information seeking behaviors (Pedersen & Lupton, 2018; Price et al., 2017). Individuals with specific health concerns or diagnoses use these online communities to disclose their state of health and to seek information and social support from others who may be going through the similar issues (Fan & Lederman, 2017; Jamarl et al., 2015; Litchman, Rothwell, & Edelman, 2018). However, critics contend that connective technologies are paradoxical in that they facilitate connectivity while inhibiting a meaningful connection with one another (Turkle, 2011) and have other adverse consequences such as lower self-esteem in teens (Twenge, 2013).

## Negative Attributes of Reddit as an Online Community

Reddit in particular is an intriguing online community because it is more of a "throwback" to the pseudonymous forums, such as 4chan, in the aughts in that it does not follow the Web 2.0 rule of "one name/real name." Unfortunately, Reddit is known for its promotion and cultivation of toxic masculinity: In addition to Gamergate and the Fappening, which were discussed briefly in the introduction, it is home to the Red Pill philosophy/"Manosphere," which

is associated with cyberhate (Jane, 2018) and virtual violence (Dragiewicz et al., 2018). Reddit is also home to other related toxic technocultures which encourage incels (i.e., from the portmanteau "involuntary celibacy") who are categorized as misanthropic men who feel that they are owed sex. Even more "neutral" descriptions of terms commonly used on Reddit tend to underscore the male skew. For example "circle jerk" which refers to a group-think phenomenon and validation thereof, is heavily gendered (MacLean, 2018, p. xi) of toxic online disinhibition (i.e., online disinhibition effect is defined as the lowering of one's behavioral inhibition in an online setting [Dryer et al., 1995]. Toxic online inhibition refers to aggressive actions, that would not be exhibited offline [Suler, 2004]. Toxic masculinity, is characterized by a "drive to dominate" and endorsing misogynistic and homophobic views [Parent, Gobble, & Rochlen, 2018, n.p.]).

**Positive Attributes of Reddit**

Despite the fact that the research on Reddit has been overwhelmingly negative, and for good reason, I argue it also affords the ability for users to reach out for help on difficult topics as well. The subreddit system allows for discovery and creation of communities filled with like-minded individuals and serves as a middle ground between traditional anonymous forms and social media (De Choudhury & De, 2014). Furthermore, it may initially seem as if the anonymity and ease with which one might create a throwaway account, creates an environment that cultures tenets of toxic online disinhibition. However there is evidence that Reddit also support victim-survivors of sexual assault (O'Neill, 2018), those seeking health information (Record, Silberman, Santiago, & Ham, 2018) those trying to quit drugs (Sowles et al., 2017), or reclaiming troll identity through the use of feminist humor (Massanari, 2019). Given that Reddit has been show

to perpetuate both toxic techoculture and provide non-toxic types of social support I pose the following questions:

RQ 1: How do men on Tinder profile Review Week present themselves?

RQ 1a: What strategies do they use to create desirable selves?

RQ 1b: What difference, if any, does race make to presentation style?

RQ 2: What kind of responses do these men receive?

RQ 2b: How do they types of responses Asian men receive differ from the group?

## Methodology

This chapter utilizes qualitative content analysis to examine and describe the ways in which users talk about themselves and provide social support for one another on the r/Tinder subreddit. Content and thematic analyses are appropriate for examining subreddits (Thelwall & Stuart, 2018) because they are often descriptive in focus and design which helps to develop an understanding of the subreddit (Krippendorff, 2013; Sandelowski & Barroso, 2003; Schreier, 2012) and because meaning is complex, contextual, and sometimes latent rather than manifest (Kracauer, 1952). As such, a qualitative approach may pick up on nuances and can adequately take into account instances of omissions of expected content (Drisko & Maschi, 2015). That is, because comments on Reddit may contain multiple modes of communication (e.g., text, general image, meme, hyperlink, emojis, etc.), omissions of text in favor of emojis or images, for example, are comprehendible and can be included for a more accurate analysis.

### Study Procedures

I used the inductive process outlined in Figure 2 below. In order to prepare the data, I downloaded all public comments for one posting of the “Profile Review Week” (duration: 7

days) on the r/Tinder subreddit using a script (see Appendix D for script). There was a total of 1,850 units (i.e., including posts and responses) during the duration of this "Profile Review Week." I define *post* as a post a user submits in order to get feedback on his Tinder profile. These posts provide the data for the analysis of visual masculinity. A *response* is defined as a post that responds to a post that seeks feedback. These responses provide the data for positive/negative responses to the performance's visual masculinity.

Because I am interested in visual performances of visual masculinity (i.e., posts that shared their Tinder Profiles) responses to those specific posts, I only coded posts that included photos and their respective comment threads. I did not code posts that only included text. This reduced the number of posts to 933 (140 posts and 793 responses). Like other qualitative studies in which themes emerge from the data *a posteriori*, I first coded 10% of the units for both posts and responses to create the code frame (see Tables 3 [post] and 4 [responses]), and then coded the rest of the responses. A second coder was trained for 3 hours by using example posts from older threads and coded 10% of the posts for intercoder reliability (Chronbach's alpha = 0.81 [posts]; 0.76 [responses]) (see Appendix C for full codebook and additional literature support justification of themes). In order to ensure that meaning was not lost or misconstrued, I opted to code posts holistically (i.e., based on the content of the entire post) rather than a sentence level. After completing the open coding, I produced primary codes and axial codes (i.e., abstractions) (see Table 1 and Table 2).

**Analysis Plan**

While there may be overt signifiers of toxic and healthy masculinity (e.g., swastika, confederate flag, clothing items that objectify women, etc.) many attributes of both healthy and toxic masculinity are not easily observed through photos. Therefore, in order to get a more

accurate measurement of impression management strategies, I used manifest characteristics and extrapolated meaning from that. This, however, results in an analysis that cannot directly speak to toxic or healthy performances of masculinity, but nonetheless provides robust descriptions of impression management strategies used. Likewise, in regard to replies, I do not focus on coding for healthy or toxic masculinity, but a more manifest characteristics of whether or not replies are perceived to be helpful/unhelpful and positive/negative in tone.

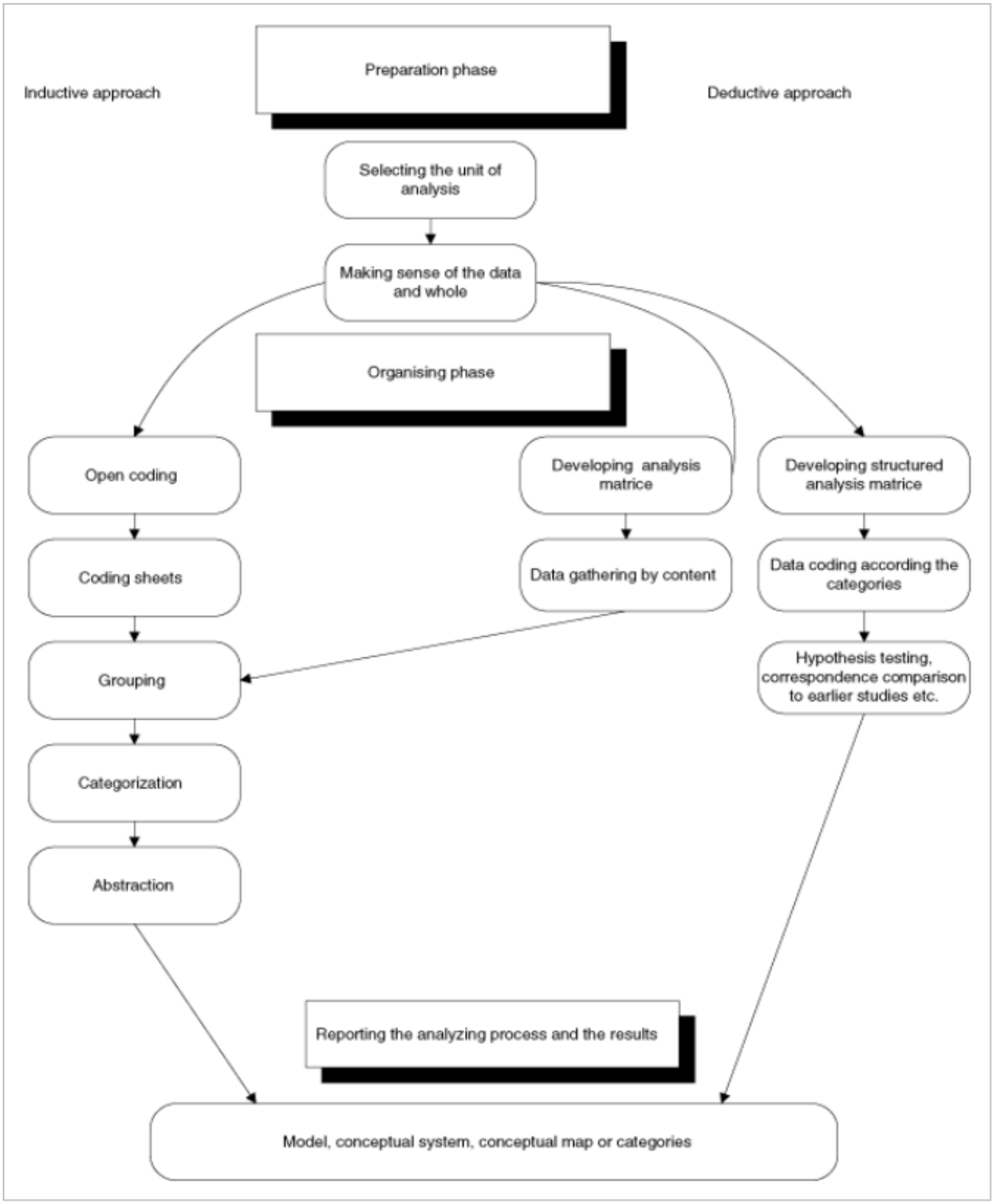


*Figure 2: Note. The qualitative content analysis process, Elo, S., & Kyngäs, H., 2008, retrieved from Journal of Advanced Nursing, 62(1), 107–115. Copyright 2007 The authors; Blackwell Publishing Ltd.*

**Internet Ethics**

According to the review board through which the author seeks IRB approval, this project does not constitute human subjects research because there is no interaction or intervention with any individuals/groups. Nevertheless, as internet research becomes an increasingly popular modality of research (e.g., utilizing the internet to send out surveys, conducting interviews, or employing automated means of data scraping) and topic of inquiry (e.g., engaging with online spaces, such as social networking sites, blogs, forums, through digital ethnography or other methodological approaches) (AOIR, 2012) a deeper consideration of internet research ethics may help offset or prevent "harm" to the constituents while critically analyzing the costs and benefits of the "social good" produced by the research. Ahmed, Bath, & Demartini (2018) pose these questions of social media research: "How much weight should be assigned the views of social media users as they may not fully comprehend the Terms and Conditions of a social media platform? Is ignorance really a justification for a researcher to override the privacy rights of a user?" (p. 85). In my own work, users' ignorance is rarely a valid justification for an override of their privacy rights. However, in the following paragraphs, I underscore why I opted to retain threads in their entirety.

For this paper, the benefit of examining the ways in which "masculinity" is performed and perceived to be desirable is that it may lay the groundwork for health and social interventions of men who engage in help-seeking behaviors and men who grapple with issues of masculinity within the context of a romantic relationship, erotic encounter, or somewhere in between. In order to respect the privacy of users, most of the data is presented in aggregate form (i.e., in this case, frequency counts). Most users who seek advice most commonly include their

age and sex; some also include location and sexual orientation. Although many users post photos, none of those photos are included here.

Although it is common to paraphrase comments so they are not searchable, I opted to leave them verbatim because any type of rendering on my part will be imbued with my biases. Keeping the posts verbatim maintains the integrity of the content. Additionally, the posts that have been cited verbatim are included here in full precisely because it is necessary to provide space for different voices in a space that is predominantly white and male. To speak for these voices may be counterproductive. That is, by paraphrasing this content, I, as the researcher, would be taking agency away from those who use the form to seek help by representing them through my understanding of the exchange, in a way that serves my purposes (Maggio, 2007). Finally, because Reddit is a forum whose users are overwhelmingly pseudonymous, unlike social media sites (e.g., Facebook or Twitter), which utilize a "one-name/real name" policy, it is additionally challenging to associate the content with a "real" identity (Massanari, 2015).[8]

## Findings

These findings 1. Describe the types of photos men of the r/Tinder Profile Review Week use in their online dating profile, thus giving insight into their raced and gendered performances of online desirability; 2. It underscores the ways in which Asian men must perform differently than white men, particularly in ways that contradict common Asian stereotypes, to receive the

[8] Online identities are real. However, when I use the term "real identity" I refer to one's legal name.

same type of feedback as the average group. In certain situations, Asian men still receive racist feedback. And 3. It bears in mind that these men are willing to seek help.

## Visual Masculinity

In this section, I discuss the findings of the how men opt to create desirable selves. I compare the group percentage against the percentage of Asian men specifically. As this is a qualitative paper, I did not test for statistical significance between the two groups. Rather, if there was a difference of more than 10% between the group and Asian men, I talk about that result in depth.

*Table 1: Visual Masculinity Results*

| Topic | Code | Definition | Percent (All) | Percent (Asian) |
|---|---|---|---|---|
| **PROXEMICS** | Face | Only the subject's face is visible | 16% | 12% |
| | Upper Body | Chest and face are visible | 27% | 15% |
| | Half body | Subject is visible from the waist up | 18% | 29% |
| | 3/4 body | Subject is visible from the hips up | 17% | 22% |
| | Full body | Fully body or nearly full body is visible | 23% | 22% |
| **SELFIE** | Yes | This picture is a selfie | 30% | 25% |
| | No | This picture is not a selfie | 67% | 70% |
| | Indiscernible | It is not possible to tell whether this is a selfie | 3% | 5% |
| **OPENNESS** | Open mouth smile | Subject is smiling and teeth are visible/mouth is open | 43% | 52% |
| | Closed mouth smile | Subject is smiling but teeth are not visible; lips are pressed together | 24% | 30% |
| | Not smiling | Subject is not smiling; facial expression may be neutral or other | 27% | 18% |
| | Face not visible | The face of the subject is not visible | 6% | 2% |
| **SOCIAL** | Subject is alone | There are no other subjects in the frame | 75% | 60% |

| Topic | Code | Definition | Percent (All) | Percent (Asian) |
|---|---|---|---|---|
| | There are 1-2 additional subject | There are at least 1-2 other people in the frame for a total of 2-3 photo subjects | 19% | 29% |
| | There are 3 or more additional subjects | There are at least 3 other people in the frame for a total of 4 or more photo subjects | 6% | 11% |
| **SETTING** | Indoor | This photo is taken outdoors | 49% | 48% |
| | Outdoor | This photo is taken indoors | 47% | 50% |
| | Indiscernible | It is not possible to tell whether this photo is taken indoors or outdoors | 3% | 2% |
| **CLOTHING** | Causal | Photo subject is wearing casual clothes, such as t-shirt, jeans, or workout clothes | 61% | 70% |
| | Dressy casual | Photo subject is wearing a shirt with a collar, a nice sweater, etc. | 15% | 11% |
| | Semiformal/formal | Photo subject is wearing a suit or a dress shirt likely with a tie | 10% | 6% |
| | Work | Photo subject is wearing clothing that indicates his profession | 3% | 1% |
| | Costume | Photo subject is wearing a costume | 5% | 7% |
| | Shirtless | The photo subject is not wearing a shirt | 3% | 1% |
| | Indiscernible | It is not possible to discern what the photo subject is wearing | 3% | 4% |

**For All Men Who Posted a Tinder Profile**

From these findings, we can see that men overall present well-rounded profiles that encompass a range of sociability, a range of space between oneself and the camera, and range of clothing choices. Less than 7% of the posters had profiles that utilize all the same types of photos (e.g., all indoor selfies in t-shirts, or photos that were all the same distance from the camera). This suggests that men are aware that they need to show that they are open (i.e., 67% utilized photos in which they smiled). Additionally, we see that 25% of the photos utilized include at least one other photo subject, demonstrating a social ability. This sociability, friendly (i.e., smiling), and emphasis on casual clothing coupled with the act of asking for feedback on Reddit, a public forum, challenges some of the stereotypes included in hegemonic and toxic masculinity (caveats to be discussed in the conclusion).

One thing that was particularly interesting was the number of selfies these men used. Although pop culture advice suggests selfies are not the most persuasive type of photo to use for an online profile (Elderfield, 2018; Sturgis, 2015) about 30% of all photos coded were selfies. This might be because the process of taking selfies usually allows the photographer (i.e., oneself) to have better control of the final outcome of the photo (Mehdizahed, 2010). On the other hand, this might because men do not feel comfortable asking other people to take a photo in an opportune moment. A comment that surfaced in this thread was the concession that the poster struggled to put together his Tinder profile because he had so few pictures. Of course, there are gendered implications about this that, in the age of social media, it is permissible for women to take many selfies or group photos, however, it is considered to be unmasculine for men to engage in these photo taking opportunities (barring for certain circumstances such as hikes, rock climbing, or other sports that demonstrate athleticism or some other type activity). Therefore, the

act of the selfie, although it is not the ideal type of photo for a profile photo, may stem from a lack of photo.

**Asian Men Who Posted a Tinder Profile**

Regarding Asian men, we see that 1. Asian men dressed more casually than the group average; 2. Asian men have more subjects in the photo frame, and 3. Asian men more frequently took pictures from a distance.

Asian men may wish to dress more casually because it may make them seem more accessible and authentic. Studies on physical attractiveness and manner of dress in business settings demonstrate that physical attractiveness is correlated with a person being perceived to have more positive traits (Bardack & McAndrew, 1985). However, there have been studies that demonstrate that certain manners of dress may be construed as deceptive (e.g., in a photo one might dress more youthfully in order to pass as younger) (Tsikerdekis & Zeadally, 2014). Therefore, the act of dressing casually perhaps serves as a means of authenticity: One cannot hide behind the suits which have shown to make men appear more professional and inaccessible. For Asian men who grapple with the model minority stereotype, onto which media places the emphasis on work ethic (Taylor & Stern, 2013), dressing casually on one's Tinder profile may be a move away from that stereotype.

Perhaps because Asians are often portrayed as foreigners lacking social and communication skills, who are thus often "left out" (Zhang, 2010), Asian men may utilize additional photo subjects (i.e., friends and or family) to demonstrate additional sociability that is not expected of other men. Indeed, including photos with more people provides empirical evidence that the user is not "left out"—Asian men present desirable selves that can be situated

in a social context. It communicates social and communication skills and gives the impression that they belong to social groups.

Finally, Asian men tended to use more photos that conveyed distance, a trait that is typically associated with hegemonic masculinity and an inability to be open. This finding coupled with findings from chapter 3 (chapter on users) may suggest that Asian men are engaging in a number of strategies to demonstrate their openness, sociability, extraversion, and friendliness, whilst still engaging in other strategies, such as a physical distancing from the non-self Tinder user, to create a barrier between the self and potential negative outcomes on the dating app.

## Replies

Even if Asian men present themselves in different ways from the group, examining the ways in which these presentations and differences are received by other Redditors offers insights into how Asian men are treated similarly to or different from the group. By analyzing the reception of Asian men's Tinder profiles, it becomes possible to see the type of feedback loops that are in place for groups of difference. I explain in this section that, upon a brief look at the numbers, it appears as if Asian men receive similar responses to the group (there are no differences great than 10%). However, I noticed while coding, Asian men received feedback in direct relation to their race, whereas no other racial group received this type of treatment (I offer some reasons why this might be the case below, such as racial ambiguity or fear of making racist comments). Of course, while the audience on Reddit is predominantly male, these comments provide insight to how Asian men are perceived and treated in the creation of their desirable selves.

*Table 2: Tinder Profile Review Week replies results*

| Code | Definition | Exemplar Quote | Percentage (All) | Percentage (Asian) |
|---|---|---|---|---|
| Productive, Neutral | Reply includes tangible feedback. It is not possible to determine whether there is positive or negative sentiment. | [Of your photos,] 1,2,4, and 6 are actually tied for me, since the picture resolution of 1 is high. Maybe you can get new pics taken on vacation w/o a hat on. | 23% | 20% |
| Productive, Positive | Reply includes tangible feedback and is generally positive in its sentiment. | You're not ugly. The second picture is not good, however, and the selfie isn't the best main you could use. The third photo is much better and you look more attractive, but it's not the best quality. Friend photo is great, but you're hidden at the back. Dog photos are great, but include yourself in them. | 52% | 56% |
| Productive, Negative | Reply includes tangible feedback and has a generally negative tone. | Jesus christ dude get rid of the amish beard | 15% | 18% |
| Unproductive, Positive | There is no tangible feedback, but the response contains positive sentiment, such as a compliment. | Bro I would not want you hanging around my girl! Hot dam. (No homo) | 7% | 3% |

| Code | Definition | Exemplar Quote | Percentage (All) | Percentage (Asian) |
|---|---|---|---|---|
| | There is no tangible feedback, but the response contains negative sentiment, such as an insult | You come across like you wanna be someones gay best friend | 1% | 2% |
| None of the Above | The reply cannot be categorized into any of the aforementioned categories and is likely to be irrelevant within the context of this study. | ...didn't you make vines at one point lmao | 2% | 1% |

As evidenced here, the majority of the participants [72%] do their best to provide a type of feedback for the person seeking advice. This advice ranges from extremely neutral advice—the most common being simple advice on how to reorder photos. Productive positive posts include posts that provide both practical feedback for a user and also includes some type of compliment. About as equally common is the productive negative posts in which responders provide feedback that can be classified as productive but also include comments that may be perceived negatively. Overtly positive and overtly negative comments that do not provide productive feedback are less, which suggests most users reply with the intent of providing helpful feedback.

Asian men do not appear to differ considerably than the group average. In fact, a look at the numbers alone suggest that Asian men (56%) receive better (i.e., productive and positive) feedback when compared to the group average (52%). However, I noted while hand coding these responses, Asian men were the only racial group to receive race related feedback.[9] These exchanges serve to demonstrate the additional race-related barriers Asian men face, such as the model minority stereotype as well as phenotypic expressions of Asian-ness. Although these comments below serve as outliers and are not necessarily representative of the dataset, they provide insight to the issues Asian men face whilst seeking help to create desirable selves. These exchanges offer insight to what Asian men experience in their lives generally, and specifically on dating apps. When given the opportunity to explain their justifications for specific impression

[9] Women, however, certainly received gender-based feedback.

management strategies, we see that these two Asian men (below) reject or subvert, in both cases, the model minority stereotype.

*Thunderfin*

*Get rid of the 'engineer', girls don't find that sexy*

*And hit the gym, you've got good height to work with. More toned body and face = more likes guaranteed*

*Lastly I know this is gonna sound racist but I'm half asian so i'll just say it anyway... try to open your eyes more in your photos. And make sure you have a variety, some smiling some serious*

*Paar5*

*i think he can keep "engineer" because if you don't have the best body or even the best pictures on tinder, sometimes when i'm on the fence about which way to swipe on a guy and i see jobs like "engineer" or education "medical school," the prospect of money and success is enough to tip the scales in your favor. don't hate on me, i'm just trying to help. the one thing i would change though is to shorten your bio to just the first couple lines.*

*Thunderfin*

*Yeah I agree, that makes sense. Given the demographic 'engineer' is fine*

*imhnnry*

*I'm proud of the fact that I'm an engineer I don't think it needs to be "sexy" what my occupation is*

*I agree I've been working out 3 times a week for the last month so that's something I've been working on*

*Thunderfin*

*I respect that, I assume you're looking for a long term relationship rather than hook ups? In that case it's fine just be aware you'll be attracting only a certain demographic*

*And that's good to hear keep at it*

This series of responses above is an excerpt of a longer response thread which is directed to an Asian man who posted his profile for feedback. Through examining this thread in detail, we can see Asian men choose to create desirable selves (despite racial stereotyping) and how others can either agree or disagree with that presentation.

Thunderfin makes multiple comments about Asian stereotypes such as small eyes and engineers as not desirable. That is, he states that the original poster should remove his occupation "engineer" because it is not sexy. Thunderfin may perceive this to be even more so the case since the original poster is Asian, and a prestigious occupation such as an engineer fits neatly into the "model minority" and nerd stereotypes. The original poster makes clear, however, that he is proud of his occupation and that his occupation does not need to be "sexy." That is, it does not appear that he perceives his occupation to contribute to an Asian stereotype, or even if he does think that, he is, nevertheless, proud of his occupation and wants to include that on his Tinder

profile as a means of creating a desirable self. Further, Paar5 who may appear to be a straight female (based on the comment "when I swipe on a guy") states that she sees occupation more of an indicator of prestige, even, in this case, factoring in the knowledge that the poster is an Asian male. In this excerpt we can see how imhnnry and paar5 understand the occupation of engineer as desirable: it is prestigious, it is something imhnnry is proud of, whereas Thunderfin, who does appear as if he is trying to help by providing what he perceives as productive and somewhat positive comments (e.g., "you have good height to work with"), perceives this to be nerdy. However, Thunderfin makes blatant race-based comments such as "try to open your eyes more in your photos." While Thunderfin may perceive this to be a helpful comment, he recognizes the racial stereotype.

In the following post, an Asian man comments that he is able to be selective and still receive a relatively high number of matches compared to other participants on the forum who often state "two matches a month" as their problem. However, the poster notes that his white roommate matches at a far higher rate, which suggests he believes race is the primary factor that leads to such different results.

*YakEvir*

*20/M/Straight*

*I get about 5-7 matches per day (not swiping right on every girl) so that's prolly okay. My white roommates get 99+ lmao*

*Any feedback on bio and pictures is greatly appreciated*

*g3e4*

*But I see my white friend has like 99+*

*Yeah, minorities usually have a harder time, it's fucked up.*

*You could try bringing up the fact that you're asian in your bio. That could show you're comfortable with who you are. A joke about the cliches or something like that.*

*Good profile though. All your pictures are nice. You could add your interests in your bio.*

*YakEvir*

*Thank you 🙏 I was thinking of a joke like "Asian myself, it doesn't do justice if I can't work with numbers, in this case, YOURS 😉" or something about numbers.*

*The only few clinches I can find are math, A's (in education), and obviously that short upper body jokes.*

*g3e4*

*Yeah or something about the language or chinese food. You'll come up with something.*

*traploper*

*"I might be Asian but I'm really bad at math" something like that might do the trick :)*

The responses, which are meant to be helpful, however, suggest the poster directly call out his race as if it is his entire identity and then make an extremely self-deprecating overly

simplistic comment about race such as “language or food.” Whereas the original poster generates a witty comment that highlights his racial background positively and in a way that underscores his conversational prowess (i.e., “Asian myself, it doesn’t do justice if I can’t work with numbers, in this case, YOURS”) via a pick up line likely tailored to his peers: college women. This line subverts the Asian model minority stereotype in a way that makes it a productive conversation starter.

In both of these extended excerpts, we see Asian men either directly reject the model minority stereotype (i.e. “I’m proud to be an engineer”) or subvert it through a clever pick up line. However, in both of these instances, they were given the opportunity via Reddit to justify these choices and negotiate whether or not these attributes were good/desirable. Thunderfin eventually concedes that maybe it is permissible to include engineer as a justification. YakEvir is able to demonstrate his pick-up line prowess by repurposing an Asian stereotype. However, on dating apps, when users engage in automatic swiping, users are not given these opportunities to justify their strategies and break through biases a non-self user might have.

## Conclusion and Limitations

In this chapter, content analyses reveal that 1. Men are willing to seek advice in an online setting even though hegemonic masculinity help-seeking behaviors are out of line with hegemonic masculinity; and 2. Men engage in a variety of impression management strategies, such as proxemics, clothing style, openness, among other strategies to produce what they perceive to be desirable selves. Asian men differ from the group in their presentation strategies, which suggests they perceive they need to communicate different messages to potential matches; and 3. Although responses tend to be positive and productive (i.e., men appear to help each

other), the deep read of the comments demonstrate racially charged comments towards Asian men. When looking at the numbers alone, it would appear that the strategies Asian men employ are successful at least within the subreddit as they receive more positive and productive feedback than the group average. However, by examining the comments they receive, it becomes apparent that (even?) when Asian men receive productive (and, in some cases, positive feedback), they are able to explain their impression management choices persuasively and speak back to common Asian stereotypes. I cautiously argue that this subreddit provides the possibility for a positive restructuring masculinity, as it is clear that these men are engaging in acts of vulnerability to make more desirable profiles.

# CHAPTER 3

## Location of Love: West Coast Asian Diaspora, Mobile Dating Apps, and Creating Desirable Selves


### Abstract

This is an exploratory study which utilizes qualitative interviews to examine the intersection of mobile dating apps, race, gender, location (i.e. diaspora and transnationalism), and the creation of desirable selves. Twenty straight Asian men who use or have used mobile dating apps (specifically, but not limited to, Tinder) were asked about their experiences on mobile dating apps as well as their impression management strategies in creating effective dating profiles. Results suggest that, although the design of mobile dating apps creates many barriers for Asian men, Asian men utilize a number of strategies to create desirable selves to combat these barriers. These results are interpreted through the lens of (geo)location, race, and gender.

## Introduction

Data provided by Pew and other scholarly sources describe mobile dating apps and online dating as an acceptable way to meet potential romantic or erotic partners (Anderson, 2016; Ellison, Heino, & Gibbs, 2006; Ward, 2017). Indeed, there is a high level of interest in mobile dating apps, the majority of that interest focuses on either men who have sex with men[10] (See: Blackwell, Birnholt, & Abbott, 2014), general impression management strategies (Ellison, Heino, & Gibbs, 2006; Duguay, 2017), or social and psychometrics of users who use dating apps (Kim, Kwon, & Lee, 2009; Sumter, Vandebosch, & Ligtenberg, 2017). At the time of writing this chapter, however, there has been no race-focused literature on mobile dating apps, much less literature focusing exclusively on heterosexual Asian men who use online spaces and their transnational identities to create spaces of desirability.

In order to foreground the issues of race, nation, and gender, focusing on Asian men has two main benefits: First, it complicates the notion that straight Asian men are undesirable romantic or sexual partners within the context of a Western-centric racial hierarchy (Kawai, 2005; Liu & Wong, 2018; Ono & Pham, 2008); secondly, it demonstrates that by de-centering the Western/Eurocentric narrative in scholarship, it is possible to gain a more robust understanding of the ways in which technology creates digital diasporas (see: Ding, 2007; Everett, 2009) and facilitates transnational flows of ideology.

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[10] The authors use the phrase men who have sex with men because not all men who use location based mobile dating apps to meet other men identify as gay.

For this chapter, I center my study around the notions of *creating desirable selves* and *creating effective profiles*. The former refers to the self-presentation strategies individuals perform to communicate their viability as a desirable mate in order to engage in the intrinsic human action of desiring and wanting to be desired and connecting to one another (Duck, 2011). Whereas "effective profiles" refers to understanding the parameters of the design of mobile dating apps (e.g., total number of profile photos permitted) and strategically crafting an *effective* profile based on those design parameters of the app. These two concepts are not mutually exclusive, and both must be considered while critically examining the technology and the users concomitantly.

By weaving ideas from critical race theory with concepts from impression management and human computer interaction, it is possible to gain a truly nuanced look into the ways in which technology as both a material artefact and a sociocultural process, iterate values and norms of society (Balsamo, 2011; Gillespie, Boczkowski, & Foot, 2014; Haraway, 2016). Further, it is possible to simultaneously consider the way users are creative and are able to "hack" together their own solutions to social and technological issues (van Dijck, 2009).

## Literature Review

### Race, Dating, and Desirability

Descriptive data from a major online dating site OKCupid demonstrates how race impacts perceived desirability and attraction and why an intersectional approach is necessary to studying this phenomenon—between 2009 and 2014, Asian men have consistently been penalized for their gender and race, whereas Asian women have consistently been rated the most attractive by men of all races (Rudder, 2014). The data put forth in this study is often used to

foreground racial issues as they pertain to dating and desirability in the U.S. and to paint a bleak outlook on the state of racial equality (such as in Dovidio, Gaertner, & Pearson, 2017; Tyson et al., 2016). Although these issues are valid, concerning, and should be investigated, by focusing on a specific demographic and situating their experiences within a transnational context, researchers are able to see how the general impacts of technology affect different social groups from a non-U.S.-centric lens. That is, looking specifically at Asian men as subjects of inquiry substantiates, provides nuance for, and brings forth caveats for many of the claims made about the effects of mobile dating apps as most of these claims are situated within a Western narrative. An intersectional approach is necessary because to speak only to masculine *or* Asian discourses do not give a comprehensive understanding of the social situation, as Asian-ness is marginalized whereas masculinity is not (Liu & Wong, 2018).

The desirability or seemingly lack thereof for Asian men is evidenced in a number of areas. For example, data from a speed dating experiment at Columbia indicate that to seem desirable to a woman as a man of her own race, an Asian man would need to make $247,000 to be on even ground with his white counterpart and $220,000 for his Black male counterpart. This "real life" observation is echoed online as well: Asian men and black women do the poorest in regard to match rate on OKCupid, whereas Asian females do the best of all other racial categories of women (Rudder, 2014). Indeed, interracial dating and marriage are on the rise in the U.S., however, straight females of all racial groups are less willing to date Asian men (relative to at least one other race) because of mediated "de-masculinization and stereotyping" of Asian men may reduce their desirability (Hwang, 2012, n.p.; U.S., 2012).

The overwhelming majority of the research does not take into consideration the impact of demographic differences among different locations even though Tinder and most other mobile

dating apps are “Location-Based, Real Time” (LBRT) applications. This means we must take into consideration that the results of Tinder’s algorithm are situated within specific geographies and their demographic breakdown. In cities where there is a large population of Asian men, users may see that frequent and varied (re)presentations of Asian men, thus complicating some of the previous claims about the poor success rate of Asian men on dating apps.

Asian Americans increasingly bring in transnational flows of ideas and objects that create points of rupture in the dominant, Euro-centric narrative. This likely occurs for three reasons: 1. The Asian diaspora in the U.S., particularly the West Coast, is rapidly growing. The Asian American population increased by 72% (11.9 million to 20.4 million) from 2000-2015 and are projected to be the nation’s largest immigrant group. Of the current Asian population in the U.S., 59% are foreign born (Lopez, Ruiz & Patten, 2017). Popular imaginings of masculinities in China, for example, may serve as a “response to global hegemonic masculinity” because of transnational flows of media (Song, 2018, p. 37). That is, as the U.S. West Coast demographic shifts so that Asian/Americans comprise a larger portion of the population, Tinder users may see more diverse examples of desirable Asian men on dating apps as well.

The second reason is closely related to the first reason and is due to the advances in connected technologies, which creates an ongoing connection to the “homeland.” In other words, transnational populations use connected communication technologies to maintain their connection to multiple spaces (Panagakos & Horst, 2006). This transnational approach acknowledges the diasporic condition produced by “the partial belonging of subjects to both their place of residence and the homeland” (Parreñas & Siu, 2007, p. 281). That is, while the U.S.-centric narrative of Asian/American men’s lack of desirability brings up points we must address,

it may not fully acknowledge the role transnationality plays in Asian men's digital dating strategies.

Finally, the third reason includes shifts in mediated representations of Asian men and their diverse performances of masculinity. Just within the last five years, we have seen Randall Park as the romantic lead in the Netflix original *Call Me Maybe* (2019) and ABC's *Fresh Off the Boat,* Eugene Lee Yang of the Buzzfeed's Try Guys as a sex symbol, Henry Golding as the romantic lead in *Crazy, Rich, Asians* (2018), Manny Jacinto of NBC's serial *The Good Place* (2016-present) whom Kristen Bell's character constantly characterizes as "hot", R&B artist Bruno Mars, Tan France, the style expert, of Netflix original *Queer Eye*, and Aziz Ansari comedian and romantic lead in his show *Master of None* (2015-2017), among others. All of these actors in their performances as mainstream musical artists, style experts, comedians, romantic leads, fathers, husbands, sex symbols, among other roles, offer a freshness to Asian/American representation and work to undo decades of misrepresentation of Asian/American men, such as, just as one example, the yellowface performance of Mickey Rooney in *Breakfast at Tiffany's* (1961).

**The Impact of Technological Design**

Despite the ease with which Asian men may access transnational spaces and digital diasporas, they must nevertheless contend with stereotypes perpetuated by the design of the mobile dating app and the impact those stereotypes have on their self-esteem. Individuals do not necessarily have similar experiences utilizing these mobile dating apps because of the constraints of the platform itself (Hobbs, Owen & Gerber, 2017). In particular, Tinder and the majority of mobile dating apps have a strong visual component (i.e., emphasis on profile photos), and users

who are not perceived to be attractive are constrained by non-self user (i.e., to refer to a user that is not oneself; used to differentiate between the primary user and users that that user may interact with) bias and the platform design itself (Hobbs, Owen & Gerber, 2017, p. 281). Although this may seem straightforward enough to consider, Asian men may be dismissed because of the (unconscious) biases of non-self users. This is particularly true when we bear in mind the impact of racial and gender stereotypes, such as Asian men may be perceived to be effeminate and lower racial status (Hwang, 2012).

The design of Tinder encourages users to behave in ways that may encourage unconscious biases and does not internally (i.e., through using the app) provide ways for recipients of that combating that bias. Further, one of the main psychosocial motivations for Tinder usage amongst emerging adults is self-worth and validation of one's physical appearance (Sumter, Vandenbosch, & Ligtenberg, 2017; Timmermans & Caluwe, 2017). This might explain why users experience lower self-esteem the longer they are on the mobile dating app (Courtois & Timmermans, 2018). More importantly, if an Asia man uses Tinder or other dating apps to seek validation and/or to seek a match and does not receive a sufficient amount of matches, which necessitates another user swiping right (i.e., expressing acceptance or interests), he may interpret the lack of matches as negative feedback on his physical appearance.[11] This is especially the case for those who use Tinder for the "ego-boost" (Timmermans & Caluwe, 2017), because it has been observed that the match rate on Tinder is curvilinear and user swiping quantity, therefore,

[11] Curtois & Timmermans (2018) suggest Tinder may do this to incentivize people to purchase upgrades. That is, if users feel they are plateauing, they are able to attain more access through the upgrade

does not necessarily increase the number of matches he or she receives (Courtois & Timmermans, 2018; Timmermans & Courtois, 2018). As a result, Asian men, one of the groups that are on the receiving end of that bias, deal with the consequences, such as lower self-esteem, to greater degrees. (Of course, ideally, the app should be designed so that Asian men do not need to reactively respond to bias).

Bearing in mind the issues of race and gender as they pertain technology, users, and society, I pose two research questions for this chapter:

RQ 1: How do Asian men talk about some of the barriers they face on mobile dating apps? What role do they think race and gender play in this?

RQ 2: What strategies, if any, do they employ to mitigate the barriers they encounter?

## Methods

### Online Interviews

For this study, I opted to employ qualitative online interviews to examine the ways in which Asian men talked about the different strategies they utilized to create desirable selves on Tinder as well as the sociotechnical barriers they faced in pursuit of "matching" with others. Qualitative interview methods, through which researchers gather facts, stories, and make sense of emotions and communication processes (Rossetto, 2014; Stein, 2017; Tracy, 2012; Weiss, 1994), afford these Asian men the space to talk about their mobile dating app experiences in general and granular ways, such that "unfamiliarity, ambiguity, and vulnerability" (Lindlof & Taylor, 2017), which may not be suitable for other methodologies (Lindlof & Taylor, 2017; Tracy, 2010; Winter, 2000), are assets that accurately reflect the messy, socially contextualized

lived realities of these mobile dating app users (Tracy, 2010; Winter, 2000). Through listening deeply to a participant's renderings of his dating app experiences, it is possible to identify or connect to larger sociocultural patterns (Siedman, 2013) of gender, race, technology, and romance, as those patterns are influenced by technological constraints (Balsamo, 2011; Bardzell, 2010). One of the drawbacks of online interviews, however, is the quality of calls. In particular, two participants had poor internet or data connection, therefore the conversation became choppy. Therefore, while I was able to schedule conversations with these two users in an impromptu fashion, because they were in areas with no WiFi, I was unable to have a robust conversation with either of them.

It is important to acknowledge the power dynamics that go into interviews (Macaskie, Lees, & Freshwater, 2015): Some scholars go so far as to argue that interviews are inherently exploitative (Anderson & Ivarsson, 2015) because it is the researcher who decides on the design and execution of the study, advocates for the research merit to Institutional Review Board, and presents the research (Salmon, 2015). However, when conducted skillfully, in-depth qualitative interviews are generative, co-constructed conversations (Gubrium & Holstein, 2003) that may ultimately be cathartic or empowering to interview participants (Hutchinson, Wilson, & Wilson, 1994; Weiss, 1994) as they feel free to convey their thoughts and create meanings on their terms (Mishler, 1986). To offer Asian men a platform on which they are able to assert their agency in creating their narrative of digital desirability, I asked questions regarding their general perceptions of mobile dating apps, the barriers they feel that they face, as well as the strategies they use to create desirable selves in this digital space.

*Sample Characteristics*

For this study, I interviewed 20 Asian men who met the criteria listed in Table 3. I used "homogenous" purposive sample, which is defined as a non-probabilistic sample (i.e., the sample is not generalizable to the population) that has similar characteristics based generally on race, gender, and mobile dating app usage, and specifically on the criteria listed in Table 3 (Frieman, Saucier & Miller, 2018). A full description of this sample is available in Table 4. I reached saturation—the point at which no new information is generated—at 17 interviews.

*Table 3: Recruiting Criteria*

| | |
|---|---|
| Inclusion Criteria | Self identifies as Asian (i.e., mixed-race Asian, Asian-American, Asian from a country of origin other than the U.S.) |
| | Self identifies as male |
| | Self identifies as straight |
| | 18+ years old |
| | Lives in Los Angeles, Honolulu, or Seattle |
| | Is a current or previous user of the mobile dating app Tinder |
| Exclusion criteria | Does not identify as a straight Asian male |
| | Does not live in Los Angeles, Honolulu or Seattle |
| | Is under 18 years old |
| | Is not or has not been a user of the mobile dating app Tinder. |

*Table 4: Demographic Description of Sample.*

| **Name** | **Age** | **Location** | **Generation** | **Occupation Status (e.g., white- or blue-** |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| | | | | **collar work; student)** |
| **Tedrick** | 29 | Seattle | Second Generation | White |
| **Vincent** | 25 | Honolulu | First Generation | White |
| **Nathan** | 25 | Los Angeles | First Generation | White |
| **Thomas** | 27 | Los Angeles | First Generation | White |
| **Davin** | 26 | Honolulu | Fifth+ Generation | White |
| **Michael** | 24 | Seattle | Fourth Generation | White |
| **Yongwhan** | 28 | Los Angeles | First Generation | White |
| **Kunpei** | 20 | Seattle | International | Student |
| **Will** | 34 | Seattle | Second Generation | Blue |
| **Charles** | 20 | Seattle | International | Student |
| **Christian** | 19 | Seattle | Second Generation | Student |
| **Tyler** | 20 | Seattle | First Generation | Student |
| **Bao** | 19 | Seattle | Second Generation | Student |
| **Michael 2** | 20 | Seattle | First Generation | Student |
| **Veng** | 23 | Los Angeles | Third Generation | White |
| **Elbert** | 31 | Honolulu | Second Generation | White |
| **Shohei** | 27 | Los Angeles | Second Generation | White |

| | | | | |
|---|---|---|---|---|
| **David** | 25 | Honolulu | Third Generation | Blue |
| **NJ** | 24 | Seattle | Second Generation | White |

Ages ranged from 19-34 (median: 26 years old). This average is brought down in part by the lack of older users (e.g., users between the ages of 35-44). It, however, makes sense as nearly half of users of mobile dating apps (49%) tend to be between the ages of 18-34 (Smith & Anderson, 2016). Additionally, forty-five percent of participants identified as either international or first generation, 22% identified as second generation, and 33% of participants identified as third to fifth generation. I include generational information here because more recent generations may have different perspectives of desirability and the relationship process.

Participants were either from Seattle, Los Angeles, or Honolulu because I sought to find thematic similarities despite the difference in racial demographics in each respective city.

*Table 5: Demographic breakdown ranked by Asian population in descending order.*

| | Asian | White | Black | Hispanic & Pacific Islander |
|---|---|---|---|---|
| Honolulu | 54.8% | 17.9% | 1.5% | 5.4% |
| Seattle | 13.8% | 66.3% | 7.9% | 6.6% |
| Los Angeles | 10.7% | 29.4% | 9.8% | 47.5% |

Seattle and Los Angeles have similar percentages for the Asian demographic. However, Los Angeles is considerably more racially diverse than Seattle. Honolulu has the highest percentage of Asians.

As mobile dating apps are becoming an increasingly common means by which people seek casual and long-term relationships (Bosker, 2013; Sumter, Vandenbosch & Ligtenberg, 2017), it was necessary to include people who no longer use the apps in this sample as well. Because they achieved their goal through the dating app likely gives them a different perspective than those who discontinued app usage because their goals were not being met. Seattle had twice the number of participants because it also included university students in its sample whereas Honolulu and Los Angeles did not.

**Study Procedures**

Data collection occurred in three waves: 1. I recruited working professionals through my personal and professional networks on the West Coast by sending out a brief description of the study via text or email and asking whether the potential candidate was interested in participating 2. Students were recruited through an extra credit opportunity in a class for which I was a teaching assistant, and 3. Current participants referred their friends who also met the inclusion criteria (i.e., snowball sampling – whereby one participant leads to another [(Frieman, Saucier & Miller, 2018)).

I interviewed participants through online means, such as Skype or Google Hangouts because online interviews allow for an increased pool of participants who would otherwise be geographically inaccessible (Salmons, 2009). Interviews ranged from 27-42 minutes (median: 34 minutes), and participants were distributed evenly across all three cities (Honolulu, Los Angeles,

Seattle, respectively)[12]. In order to ensure consistency across all interviews, all participants were asked the same set of questions (Rubin & Rubin, 2005). To get a sense of Asian men's perceptions of mobile dating apps, perceived barriers, and the strategies they implemented, I asked questions such as, "Dating apps are an increasingly common way of meeting people, what do you think of them?"; "You indicated earlier that you use mobile dating apps. Tell me about your motivation for using them"; "Go ahead and walk me through your selection of profile pictures. As you do so, please explain why you decided to use those photos" (see Appendix E for full discussion guide). Common follow up prompts included: (For visual stimuli) "How would you describe the setting of/action in this [photo]?"; "Can you tell me more about that?"; "Can you give me an example of that?"; "Can you walk me through that?" (See Appendix E for full discussion guide).

All participants gave their permission to have the audio of the conversation recorded. By recording the interviews rather than taking consistent notes, I was able to better focus my attention on ensuring the interviewee felt heard, comfortable, and like he had an equal or larger stake than myself in the conversation. Because participants were asked to engage with Tinder, I took some notes when the interviewees demonstrated certain gestures or showed me their photos and asked them to narrate what they were showing me. The audio recordings were then transcribed by an independent contractor who specializes in transcribing for social scientific and humanistic academic work.

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[12] Seattle has double the number of participants because it includes a student sample as well.

**Data Analysis**

A grounded theory approach enabled themes to be emergent from the data so that scholarship might inform the general conceptual framework of the interviews, but the concrete themes emerge and are generated and reified through the conversations with the Asian men who use mobile dating apps. In order to capture these codes, I coded transcripts by self-contained segments, in which the unit of analysis ranged from a word to several sentences, so that a sentiment could be interpreted within the context of the conversation. After I generated the initial code frame, I thematically grouped these codes into broader themes based on similarities codes had with one another. Codes in Table 6 were developed as formal renderings of those themes (Guest, Bunce & Johnson, 2006 p. 77).

*Table 6: Summary of Findings*

| TOPIC | AXIAL/MAIN CODES | SECONDARY CODES | DESCRIPTION |
|---|---|---|---|
| Barriers to connection | Social barriers | | This code looks at the ways in which users talk about race and gender collectively and separately as barriers to matching |
| | | Race | User feels his race decreases the likelihood of matching |
| | | Gender | User feels his gender decreases the likelihood of matching |
| | Technical barriers, design | | This code looks at the way users talk directly or indirectly about the ways in which Tinder's UI creates barriers to matching |
| | | Dating app parameters (e.g., swipe limit) | Users talk about limits set forth by the app such as its swipe limit |
| | | Inauthenticity/Lack of trust (e.g., being catfished) | Users talk about how potential romantic partners utilized overly flattering photos, which thus resulted in the user with less trust in the app and the non-self users of the app |
| | Technical barriers, effects thereof | | This code looks at the effects of the technology/design of Tinder that may ultimately create barriers to connecting with another person |
| | | Automaticity | Users swipe automatically without engaging with the profile they are swiping on |
| | | Objectification | Users refer to potential matches as objects (i.e., profile cards) rather than another human |
| | | Lowered self-esteem | Users specifically comment on the ways in which a consistent low match rate or inability to reach one's goals is a type of negative feedback that impacts their self-esteem |

| TOPIC | AXIAL/MAIN CODES | SECONDARY CODES | DESCRIPTION |
|---|---|---|---|
| Strategies, impression managemeNt | Authenticity | | This code includes different impression management strategies to create an authentic, desirable self |
| | | Photos with friends | Users talk about using photos with friends to validate their authenticity as a human/not a bot |
| | | Photos of body | Users talk about using photos of their body to convey authenticity of body type |
| | | Photos that convey personality/interests/hobbies | Users talk about selecting photos that best illustrate their personality/hobbies |
| | Strategic communication | | This code refers to other strategic communication strategies about oneself that targets certain audiences |
| | | Mainstream imagined audience | Using communication strategies to gain a wide, mainstream viewership |
| | | Specific imagined audiences | Using communication strategies to communicate to a specific imagined audience |
| Strategies, other | Distancing, external social | | User distances himself from social issues and suggests an external locus of control |
| | | Socially from stereotypes | User distances himself from common stereotypes |
| | Distancing, internal social | | User distances himself from his own mobile dating app usage but demonstrates an internal locus of control |
| | | Necessity | Mobile dating apps described as a necessary tool to meet potential romantic interests |

| TOPIC | AXIAL/MAIN CODES | SECONDARY CODES | DESCRIPTION |
|---|---|---|---|
| | | Secondary approach to meeting people | Mobile dating apps described as an inferior/less desirable way of meeting potential romantic interests |
| | Distancing, technological | | User distances himself from being a user of the app and talks about technological issues that impede him from success |
| | | Technologically by placing the onus of issues on the app | User distances himself from his performance/success on an app by underscore technical issues that originate from within the app |
| | Circumventing technological parameters | | User talks about his strategies that circumvent tech parameters to create a desirable self |
| | | Using more than one domestic app | User utilizes multiple dating apps to piece together and personalize a "best fit" solution |
| | | Using international dating apps | User utilizes international dating apps to piece together and personalize a "best fit" solution |
| | | Using US dating apps in international context | User utilizes a domestic app in a different country to gain different results. |

## Discussion

In order to have a robust discussion of these findings, I select one or two key themes for each of the main categories: "Barriers to Connection," and "Strategies," which includes technical and impression management strategies. For "Barriers to Connection" I focus on *1. Social barriers* and *2. Technological barriers* generally. For "Strategies", I focus on *1. Circumventing technological barriers, 2. Impression management strategies,* and *3. Communication authenticity to the imagined audience*. I conclude this section with a final section "Counterpoints", containing: *1. Students react to and use mobile dating apps differently than working professionals,* and *2. Notable difference among the three locations* (i.e., Honolulu, Seattle, and Los Angeles).

### Barriers to Connection

#### 1. Social barriers.

Participants felt that their race and gender negatively impacted their chances of reaching their goal on mobile dating apps. It is impossible to say without looking at Tinder's data whether Tinder users have racial preference, or perhaps more accurately stated, whether users are penalized for their race. However, existing data from OKCupid suggests that racial biases not only exist but have intensified over time. If we assume that Tinder too faces similar racial issues, applying concepts of microaggressions help to elucidate the impacts of racial biases on users: "Microaggressions seem to appear in three forms: microassault, microinsult, and microinvalidation." (Sue et al., 2007). Mobile dating app users of color may face microinvalidations in their pursuit to match and meet up with other users. Microinvalidations are

characterized by communications that exclude, negate, or nullify the psychological thoughts, feelings, or experiential reality of a person of color (Sue et al., 2007, p. 274). Mobile dating apps as a relatively new technology provide the possibility of new types of microagressions due to users' unconscious biases.

Elbert describes how his race and gender collectively impact his ability to match with women generally and white women specifically.

> *"Where [I] live is a predominately white area. I don't know too many white girls that are attracted to Asian guys… I'm probably going to match more with an Asian girl, which isn't necessarily bad, but the goal was to get a white girl… I got to break the boundaries and climb mountains. I hate it when those pretty Asian girls are taken by those white guys. I'm like, "All right, let's flip things around—plus 1 for the Asian. Team Asia! When it's an Asian girl and a white guy, it's minus 1.*

He observes that 1. white women may not be attracted to Asian men; it is difficult for Asian men to date white women, if that is their preference, and 2. White men seem to have less of a problem dating attractive Asian women/attractive Asian women prefer dating white men. He elaborates that as an Asian man, he needs to "break boundaries and climb mountains" if he wishes to reach his goal--something, he implies, is less of an issue for white men. His hyperbolic language also serves to underscore his perceive difficulty of the task. Interestingly, later in the interview, Elbert comments, "I don't think I could date a black girl," which illustrates the internal thought process users go through, which may ultimately lead to perpetuate racial biases through mobile dating apps.

Michael states that others seem to be aware of racial bias and explains below that the recommended solution is to use a dating app for Asians. He appears to be simultaneously open and critical of this race-based app:

> *I feel like it's harder [as an Asian man]. Someone suggested to me, purely for this reason—that it's harder for Asian males to get matched, so they said, "You should try East Meet East." That's another Asian dating app that specifically matches you—it's only Asian people on it, which I guess is cool because you know people are going to be interested, but then you only get to meet Asian people.*

Michael observes that users of race-specific apps will be open to him as an *Asian* man, for which he expresses positive sentiment (i.e., "I guess [it's] cool because you know people are going to be interested.") This makes his race a central factor in desirability. However, it also limits the other types of users he may be interested in meeting. By attempting to balance the pros of knowing race will not be a deterrent with the limitations of the app (i.e., "you only get to meet Asian people), Michael underscores the importance of feeling desired on an app but also states his own dissatisfaction of being only able to meet a certain type of race, not necessarily because he is not attracted to Asian women, but because race has now become a the dominant inclusion criteria.

**2. Technological barriers.**

Users talk about the ways in which Tinder's UI design negatively impacts their ability to match with others. In particular, they talk about swipe limits, bots, and how other (female) users utilize the app to their advantage by presenting "inauthentic" selves. By inhibiting a users' desire to swipe in a certain way and allowing bots to populate the app thus creating false positives and

decreasing the overall trustworthiness of the app, Tinder creates multiple barriers for certain groups of users to overcome. Further, when users are less inclined to swipe right (i.e., “yes”) on a potential match, this acts as a blocker in the user flow: Fewer likes creates less chances for mutual matches, which results in fewer users meeting their goal. Here Bao talks about the barriers (i.e., swipe limits) that he perceives to be set forth by Tinder, which may negatively impact users’ abilities to match with others:

> *I've heard that there's an algorithm on Tinder that will flag [swiping in excess] as a bot because I don't know if you guys—I don't think [female users] get this, but guys run into bots all the time, and they're pretty much fake accounts that try to get you to go to a porn website or a cam thing, which turns out to be a way to get money.*

In other words, Bao states that straight men run into bots that masquerade as female users. In order to offset this problem, he reasons that Tinder flags women who swipe right (i.e., “yes”) on too many men as bots because this swiping pattern does not map neatly to “real” female user behaviors. While some research supports Bao’s observation by underscoring that men and women use Tinder for different reasons (Sumter et al., 2017), the issue here is twofold: 1. If women do swipe freely, thus increasing the chances that they might match with more users, and are penalized for it (i.e., they are erroneously flagged as bots), they will learn to swipe less frequently. 2. This issue means there are fewer opportunities for men to mutually match with women, which leads to fewer “dates” or fewer users meeting their end goals.

**Tech barriers, effects thereof.**

In some cases, users talk about the ways in which the mobile dating app encourage behaviors that negatively impact outcomes or help to explain why some users may have less

success. These reasons include 1. The automaticity of swiping, 2. Objectification of non-self users, and 3. Possible lower self-esteem due to negative or a lack of feedback. NJ states, "*A lot of times, I literally just swipe yes until I run out of likes or something. I don't even look at the picture. I just—yeah."* The automaticity of Tinder leads to, "impersonal intimacy" (Southerton, 2017), whereby users are distracted by the repetition and accessibility of their *devices* and its applications rather than the social interaction with another user on the other side of the screen. Slightly more than half (i.e., 12) of the users specified that they engaged swiping without paying attention to the profiles on which they were swiping. This may also indirectly demonstrate how Asian men, when placed in the non-self user, are subject of unconscious biases.

Will states, "*I'll be driving and swiping. I'm using my peripherals to swipe. That's pretty much it, I guess."* The automaticity of swiping presents a number of issues: First of all, it suggests that the app is designed in such a way that users are not engaging with the other profiles, as suggested by the phrase "I don't even look at the picture," which implies that users may be engaging passively rather than actively with other profiles. By swiping "yes" on the maximum number of other users possible may be a strategy to increase the likelihood that the user matches with someone he might potentially be interested in, which implies the app is not designed in such a way that it is possible to mindfully swipe.

**Strategies**

**1. Circumventing technological barriers.**

In order to circumvent technological barriers, another set of strategies include using both an ecology of dating apps, digital diasporic spaces, and/or their transnational identities to create, move between, and claim spaces in which they feel desirable. For example, in the excerpt below,

Yongwan talks about his use of multiple dating apps—both South Korea and U.S.-based—in order to find out which app or combination of apps work for him:

> *There's [name of Korean dating app] that's for—it's just one type of dating app, and there's also Date at Noon—the translation to English from Korean. In Korean it's called [inaudible]. Then I use—obviously the pretty famous ones like OKCupid, Coffee Meets Bagel. I'm sure you have heard those. There's Hinge—H-I-N-G-E. I think that one has a nice interface, and I like that one in particular. Then there's happn—H-A-P-P-N. Then other sites, like Zoosk and Tinder and other things—I think each of these sites, they're actually looking for a different crowd of people. They tend to have a different sort of—people who are using it, different types of people, and so I tend to just stick with the ones that I like and just throw out the ones I don't.*

Notably, he talks about 1. using multiple dating apps that work for him and 2. using international dating apps that likely offer a more transnational user pool—he is able to access digital spaces that other non-Asian men might not think to access or be able to access due to language barriers. By using multiple dating apps, he is able to alternate or use them simultaneously so that he gets the results he seeks.

As an example of working outside the constraints of a Western-based mobile dating app, Adam, Seattle, states: "*When I use Tinder in Taiwan, I match with a lot of cute girls. I don't get as many matches here. I also use Tantan—it's the Chinese equivalent to Tinder."* In this excerpt, Adam is primarily located in Seattle but is originally from Taiwan and goes back regularly. He talks about the ways in which he creates a desirable self based on location and technology. He first observes that he receives considerably more matches in Taiwan than compared to the U.S.

and remarks that he uses multiple apps, in this case, an Asia-based app because he implies he has more success on it. However, like all the other participants who mentioned utilizing Asia-based mobile dating apps or East Meets East, this user suggests he does not want to be limited to a particular race even if that race is his preference. Asian Americanist Sucheng Chan (2010) observes, "Many Asians now residing in the United States tend to think of themselves not as minority Americans but as transnational members of various Asian diasporas who maintain ties with, and loyalty to, co-ethnics around the world" (p. 232). However, there is, nevertheless a complexity of residing in a national space where one might be considered less attractive or less desirable than another national space where a user has success and knows what it is like to be desired.

Unlike users who exist in one primary location, transnational citizens constitute their understanding of their desirability on a transnational scale, perhaps feeling more desired in one location, one nation more than the other. In the excerpt below, Tedrick makes this point when he states, "*One time, I faked my location in Hong Kong, and I got so many matches, whereas most of the population on Tinder here is white or Hispanic or black. Most of my matches are Asian, even locally [in the U.S.]. It has been mostly Asian matches that actively respond or talk."* Through faking his Tinder location, Tedrick learns that he is considerably more desirable in Hong Kong (notably, he does not speak Chinese), even though he lives in the U.S. West Coast Asian diaspora and would theoretically have access to a large number of potential U.S.-based Asian matches because of this.

**2. Impression management strategies.**

Participants used a number of impression management strategies to create what they perceived to be desirable selves, which demonstrates their understating of what their target audience may desire. Additionally, in communicating their authenticity as users, participants also present themselves in ways that may be direct responses to certain Asian stereotypes and show that they are more than the stereotypes of Asian men.

Users are self-aware and know whether they are attempting to reach the largest audience possible or are attempting to target a more specific group of users. In the former scenario, users select photos and engage in other messaging techniques that they believe will be desirable to their general imagined audience. In the case of the latter, users strategically include unique information that they presume will separate them from other users. The users' excitement and pride in talking about their rationale for using specific photos and text make it clear that they spent time and effort thinking of ways to best present and communicate their most desirable self. Their expressiveness and the length of time spent talking about their profiles suggest that this Tinder profile self is something they conceive to be a desirable self.

Elbert offers two strategies for communicate an authentic self,

> *I think for me, I put an artsy picture, some pretty L.A. stuff, and then a picture that has an outdoor thing, you know, "This guy's kind of well-rounded," and then just a normal picture. You do need a full-body picture, though, because some of them are deceiving*.

He talks about his hobbies to communicate the things he is interested in; he embeds himself within a shared geography (with other non-self users in the area), thus automatically creating

some type of connection; and he builds his authenticity through selecting photos that he believes show an authentic self.

Another strategy that Asian men use to create and communicate desirable selves is through including photos with friends. This seems to be the main way they establish situated authenticity. In addition to front facing presentation of authenticity, this strategy also enables the user to show that he is outgoing, something that seems to be highly desirable. Participants bring up this point in relation to women who only use selfies--these users do not give the impression that they are outgoing or have a social life.

Yongwan states,

> *I have a picture of my entire lab pictured in.... I guess I put this picture in because I wanted people to realize that I'm not faking it through, in a way, because you can put any kind of things in a profile, but it's really hard to fake pictures of me actually being present in some sort of group setting.*

Yongwan explains the perceived importance of including photos of oneself in a group setting: it situates the user within a social context and conveys authenticity, which I previously discussed as a major barrier to connection on Tinder. Users create desirable selves through including photos with friends. This seems to be the main way they establish credibility. In addition to front facing presentation of authenticity, this strategy also enables the user to show that he is outgoing, something that seems to be highly desirable. Further, this may be a direct response to the stereotype of Asians being "nerdy and left out" (Zhang, 2010). That is, when Yongwhan uses socially situated photos, he communicates authenticity and that he is not "left out." He is socially competent.

Davin demonstrates how he selected to reach both the general and specific imagined audience simultaneously:

> *In terms of how I branded myself, my tagline was, "A lover of gin, hiking, Indian cuisine, and Politics and Prose." There's a little bit of nuance there, and so—wait, let me ask you a question. Are you wearing socks? You should take them off, because you don't want them to get knocked off once I tell you about the tagline. The whole point was that Politics and Pros is a bookstore in Washington D.C., so one of the folks that I did match with, she loves D.C., and so she brought it up. She was like, "By Politics and Prose, did you mean the bookshop, or did you mean just in general?" and I said, "Why not both?" So, it's a good way—it's like a coded message, or my attempt at a coded message… to try and appeal to a certain type of person.*

In this excerpt, Davin proudly—as evidenced by "you don't want [your socks] to get knocked off"—showcases his skills in crafting his profile bio in a manner that targets both the general and specific imagined audience. This savvy decision enables Davin to engage with all users while keeping note of who he might be a particularly good match with. It also underscores the fact that he is pleased with his ability to communicate himself in this strategic way.

**Counterpoints**

**1. Students react to and use mobile dating apps differently than working professionals.**

The student participants here talk about the social affordances of mobile dating apps rather than the romantic affordances thereof which may suggest that university students prioritize accruing social capital and building a social network more than meeting romantic or erotic

partners. In other words, the student mobile dating app use case differs from working professionals, and for this reason, students may maintain higher morale using dating apps than working adults: Kunpei states,

> *In high school, a lot of people think it's more like dating apps are just a thing, but in college it's more a just social club for them to meet people and talk to people and such. That's just my two cents on it, but yeah*.

The other student's echo Kunpei's sentiment that the stakes for [Asian] students on mobile dating apps are low. That they can easily meet others in person.

Veng a first-year student, talks about dating apps as more socially acceptable in university as opposed to his experience in high school. Despite the fact that they are more socially accepted, he does not have a need for them:

> *I didn't really see a lot of value in [dating apps]. If I really wanted to go meet people, then I feel like it was more genuine if I met people just naturally, out and about in the things that I like doing, and Tinder is just—it was fun, and it was a spontaneous thing when I started. Then over time, I was just like—I just found myself just doing it just to do it, like, swiping because it was just fun for whatever reason—gratification or whatever… it was pretty effective. I met some people I still talk to, just as friends. It was overall positive. Nothing too creepy or anything like that.*

Veng's comment underscores that different contexts (i.e., using a dating app as a university student rather than a working professional) have different restrictions and different types of

freedoms. Most working adults expressed desire for freedom from mobile dating apps whereas Veng felt a freedom to use mobile dating apps. Working adults often talked about dating apps as the only way to meet women. However, Veng, despite having an "overall positive" impression of Tinder, did not feel as if it offered him any additional value to meeting people. Notably, he did not talk about Tinder, a dating app, as a way to meet up with women, but rather a way to meet with "people" which suggests students use Tinder for social rather than romantic means.

Christian, another student, demonstrates his resilience and lack of personal investment in meet ups that fail to work out,

> *It's been pretty decent. Usually, it would extend outside of the app. First you start talking on there, I guess, and then if you're comfortable enough, then you meet in person. Sometimes it was a good experience. Sometimes it's just eh, and then things just end. That's about it*.

For the college students I interviewed, the primary issues with mobile dating apps seemed to be the stigma surround mobile dating apps—the slight stigma around social incompetence balanced with technical competence and curiosity. Students were overall more blasé about mobile dating apps, expressing a much stronger "can take it or leave it attitude."

University, as a space, affords many freedoms when it comes to race, dating, and attraction compared to standard industry spaces. For example, university students, while undeniably busy, have a flexible schedule, access to a plethora of single colleagues and classmates who have yet to "settle down," face perhaps to a lesser extent than adults (i.e., those who are no longer in a university setting) issues of neighborhood redlining, and in the case of

Asian Americans in particular, an often over representation of other Asians on campus (Ashkenas, Park & Pearce, 2017) when compared to working adults.

**2. Notable difference among the three locations.**

The second counterpoint to this paper is the differences among locations: Honolulu, Seattle, and Los Angeles. Although I opted to focus on commonalities among locations for the majority of this chapter, the differences between these locations are noticeable and worth mentioning. We can see in the excerpts below the differences in expectations from users in different cities. These excerpts come from different questions, none of which explicitly asked about race, and show the way individuals do and do not consider race in varying geographical contexts. Although the sample sizes are small across the three cities, the excerpts here convey a general sentiment expressed by the entirety of the sample of the city. In Seattle, users did not necessarily comment negatively on race; however, they strove to highlight features that appeared to be aligned with mainstream (i.e., white) standards of attractiveness, whereas participants in Los Angeles commented more explicitly on race and were able to discuss it in nuanced ways. Participants in Hawaii did not comment on race, unless directly prompted.

***Los Angeles users.***

In the case of the two Los Angeles users, it becomes apparent that there is a much higher expectation for cultural competency. Shohei states,

> *Some people think I'm Korean, even after the name (i.e., Shohei is a Japanese name)... I'm a pretty American person. Even if [potential matches] were Japanese—but then they're from Japan—there are definitely a lot of cultural differences.*

Shohei observes that users think that he is Korean despite the fact his name is Shohei. He also displays his own cultural competency when he explains that he is a second generation Japanese American and, therefore, he experiences cultural differences between Japanese citizens and Japanese Americans. None of the Seattle participants discussed difference across generations or placed cultural competency expectations on potential matches. The other Los Angeles participants details the different types of Asian communities as he attempts to contextualize where he "fits" in the L.A. Asian dating scene.

Los Angeles users noted that even within the city, "Asianness" differed by neighborhood. Nathan explains,

> *I think more on the West Side [in L.A.], in those more beach communities, people are—their style is different, and you can tell. Then you go to the Asian parts of town and you get the real badass, cool Asian guy with the cars and tats and all that, and then you get the nerdy ones, and so it kind of varies.*

Nathan's observation is illustrative of the heterogony of the label Asian/American and underscores the impact exposure to a large quantity of Asians and their diverse personas can have on the way one understands "Asian." Here, in Nathan's case, he is able to see various performances of "Asian-ness" and, with nuance, situate himself within the many options.

***Hawaii users.***

The Hawaii users spoke the least about race, unless directly prompted. This is particularly evident in the selected excerpt below in which the user had walked me through his profile,

chronicled his selection/search process, and talked about one of his most memorable dates. At no point was race mentioned. David states,

> *I finally found one girl. She liked me, I liked her. I asked her to meet up. Our first date was just at Koko Head. [When w]e went to Koko Head, she passed out 75% on the way up the trail and I had to call 911 and everything.*

For the Hawaii users, many of the participants were willing, even eager to share their stories of successes and failures, but these stories, unless directly prompted, did not engage issues of race. One possible reason for this is the racial demographic breakdown in Hawaii. Nearly half of Hawaii's population is Asian. Therefore, by being the largest racial group, Asians in Hawaii may experience privilege similar to the privilege whites experience in the continental U.S. (Fujikane, 2008), and to that extent, may also have a difficult time conceiving the role race plays in various facets of their life.

***Seattle users.***

Although Seattle's Asian population is greater than Los Angeles, both Hawaii and California are majority-minority states (i.e., the majority of the population is comprised of non-whites), whereas Seattle, despite its large Asian population, is 65.7% white. This distribution of race is one possibility as to why Asian men in Seattle responded in a manner suggestive a minority group trying to respond to the norms set by a majority group.

Michael 2, Seattle states,

> *Before [I edited my profile], I had basically the same profile, and it was like, "Eh." Then I put my height, which is 6'1" in, and I got a lot more hits. I think there is some kind of—people see Asian, they think shorter, and I actually happen to be a taller-than-average person, so that point helped with more likes*.

In the case of Seattle, the user was describing his profile and explaining why he decided to include the information (i.e., photos and bio). In the case of his profile, he states he highlighted his height to distance himself away from Asian stereotypes. Through this excerpt we can see that that the user is aware of Asian stereotypes, he desired to distance himself from the stereotype, and that this distancing (i.e. including his height) may have contributed to a positive outcome (i.e. more likes). Notably users in Honolulu and Los Angeles who are considerably shorter than 6'1" had completely different perspectives. Davin of Honlulu, for example, proudly stated he was "tall for an Asian" at 5'8". Likewise, Shohei of L.A., who was a similar height to Davin, never once commented on his height either.

## Conclusion

Despite dealing with negative stereotypes of Asian men and their lack of desirability and sexuality, these users invent strategies to create effective profiles, subvert limits of a given dating apps, and convey strategically desirable selves. They speak knowledgably about the dating/attention economy, are self-aware of the challenges they face and the impact thereof, nevertheless, many of these users are able to find ways around social constraints and technological constraints.

The biggest strength is also the biggest limitation of this paper: This is an exploratory study with a limited sample size and a very specific participant group (i.e., straight Asian men

who use or have used mobile dating apps). Future research can determine whether these findings are consistent across race, gender, and sexuality categories, and build on impression management theory specifically as it relates to difference and location in an inductive fashion. Finally, although this type of research affords granular insights and is hyper-inclusive for some groups, we can see the ways in which even granular data can lead to more ethical design strategies and better, more inclusive user experiences for all users in the following chapter.

# CHAPTER 4

## Tindering Desire: A Critical Design Approach to Gamified Dating and Ethical User Retention and Engagement


### Abstract

The goal of this chapter is to discuss the affordances and constraints of gamifying mobile dating apps regarding designing, motivating and retaining engagement by prioritizing voices of those who are reported to have some of the most difficulties on mobile dating apps: Asian men. For this study, I lay out arguments against non-critical design choices for gamification strategies (i.e., arguments against manipulative and exploitative design). I conduct 10 in-depth interviews with individuals who work in the game industry to comment on the gamified aspects of mobile dating apps. With their feedback, which includes the ways in which current designs may have negative impact on self-esteem and/or decrease user engagement, I analyze the drawbacks of mobile dating apps that prioritize usability at the expense of inclusivity. As a part of my discussion, I utilize participant suggestions for more inclusive design strategies, such as random encounter strategies and opportunities to win badges.

## Introduction

This paper illustrates the social and digital game "aspects" of mobile dating apps, the problematic nature of design values driven strictly by neoliberal ideologies, and also provides solutions to these issues, such as a random encounter approach and gamification strategies to provide options to disclose more information without bloating the apps. The close attention to ethical design and gamification strategies can be applied to other gamified apps as well. Although the most common critique of gamified apps is the lack of theory in informing the design decisions of the app (Lister, 2014), I argue a similar statement could be made of mobile dating apps: While gamified mobile dating apps offer the potential of prosocial and pleasurable interactions, without a careful adherence to ethical design values, gamified dating apps may perpetuate bias.

Popular dating apps such as Tinder, Hinge, Bumble, and Coffee Meets Bagel utilize gamification strategies, such as the physical act of "swiping" a profile card to the side or counting matches as points, to increase/retain users. However, this neoliberal imagining of optimization and more-is-better competition to create the most "usable" dating app often entails designing for the mainstream and can neglect those "in the margins" (see section on the "Attention economy" for more). This neoliberal supposition of optimization and competition is associated with precarity, which can be described as "the dynamics of work and everyday life in the global neoliberal economy where the web of social and political constraints has been shredded beyond repair" (Wilson, 2017, p. 44), because the drive to optimize and the competition renders other factors unstable. It is important to note that groups of difference have long been familiar with these issues (Wilson, 2017), and that the current "currency" companies vie for is their users' attention (Ciampaglia, Flammini, & Menczer, 2015; Davenport & Beck,

2001; Marwick, 2015). Zulli (2018) emphatically states of new media environments: "Attention is one of the most valuable resources in modern day capitalism" (p. 139).

Indeed, research shows that not all groups are able to access the affordances of the app or use the app in the way the company intended. Asian men, in particular, consistently seem to have the most difficult time utilizing digital dating spaces to reach their goals (Balistreri, Joyner & Kao, 2015)[13]. Therefore, rather than Tinder's linear model of "Match. Chat. Date." Asian men and other groups of users may not match with others due to a collective (unconscious) racial biases. As a result, if any user fails to "match" with another, it is outside the realm of possibility to "chat" or "date." In the case of online dating, the available data has demonstrated racial biases: Asian men and black women tend to do more poorly on dating sites when compared to other race/gender combinations (Rudder, 2014).

One of the major reasons for this issue is that the tech industry advances so rapidly that the creation of ethical frameworks and legal regulation lag behind substantially, a phenomenon business ethicist Thomas Donaldson refers to as "tech-shock." Examples of the severe impacts of "tech-shock" include the financial crisis of 2008 where securitization of debt was not regulated, and more recently, the 2016 Russian election interference on Facebook. Many technology and society scholars in Communication have noted the inherent political nature of design and technology (Benkler, 2006; Winner 1980). Effective and good design strategies for a positive UX on a mobile app might be comprised of ongoing rigorous testing and research. If the goal of

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[13] The study's authors note that within all the racial groups, there is the largest difference between perceived attractiveness exists between Asian men and women.

the product is to obtain and retain users by offering a service, even if the service appears to promote a social good, such as Facebooks mission of empowering users to connect with everyone by providing the tools (i.e., social networking site), without a strong understanding of ethics, the strategies, such as gamification strategies, may have negative impacts on users. Similar to the sociotechnical discourse in HCI literature, which draws on feminist reflexivity of examining user agency (Marshall, 2016), it is important to make clear that the aesthetic and overall UX might encourage automaticity and may perpetuate unconscious biases.

By starting with the users of mobile dating apps who have had the most difficult time using online dating spaces as they were designed, it is possible to draw attention to the ways in which certain design choices—especially those driven by simple marketing goals of increasing and retaining more users—affect users' ability to use the technology. Taking a proactive and ethical approach to gamification and design strategies can help offset the perpetuation of low user engagement, ultimately, for *all* users.

## Literature Review

### The Attention Economy

Nearly all mobile apps vie for users' attention. Attention is defined as "the means by which we actively process a limited amount of information from the enormous amount of information available through our senses, our stored memories, and our other cognitive processes," and in the attention economy, attention is the limited resource that compels individuals to act (Drapper, 2006). In other words, attention must be withdrawn in certain situation for individuals to effectively deal with other stimuli (James, 2010). For these reasons, it

makes sense that companies seek to employ compelling strategies to keep users engaged with their products at a steep social cost. Indeed, society moves from "the gaze" which prioritizes the act of looking and otherizes the object that is looked at (Mulvey, 1975; Sartre, 1956) to the "glance" which is "the most fleeting way of perceiving the world" and is argued to be the way humans familiarize themselves with their social and natural world (Casey, 2007; Zulli, 2018). Users of social media sites derive value from being watched and getting attention (Andrejevic, 2002). Additionally, social media sites create UIs in a manner that encourages users to view and post in a manner that accommodates a "glance" rather than the "gaze" (Zulli, 2018). Without first capturing and maintaining a users' attention with compelling design and gamification strategies, mobile dating app companies will not be able to build their customer base, which is used to glances rather than gazes. Apps that are designed to elicit "fleeting way[s] of perceiving the world" may also, in their fleetingness, encourage more automatic responses from users, thus perpetuating gendered or racial biases on dating apps. That is, without critically thinking about how racial biases may inform their decision, users may act on these biases unconsciously.

Another reason for these racial biases might be attributed to the constant state of information overload, which, in turn, encourages users to revert to their biases to conserve attention (Davenport & Beck, 2001; Marwick, 2015). As such, it makes sense that businesses, especially smaller tech companies, are constantly vying for the limited attention of individuals who are constantly fatigued from information overload. In order to combat this, mobile dating app companies such as Tinder take a non-critical approach to designing value-laden user interfaces in hopes of engaging and retaining more users. In the seminal usability and design handbook, *Don't Make Me Think,* the author's response to the question he receives most often—"What's the most important thing I should do if I want to make sure my site or app is easy to

use?"—is "Don't make me think!" (Kruger, 2014, n.p.). The result, however, is that if "good design" encourages automaticity *without providing options to circumvent unconscious biases*, different groups, most likely the outliers and those "in the margins," may experience poorer levels of success based on visual and textual identity cues, such as their profile photo or an "ethnic" rather than Anglo name.

Current design strategies claim to be "user-centric," and certain tech companies claim to be "customer-obsessed." Nevertheless, a careful examination of retaining, engagement, and conversion metrics might suggest that not all groups of customers have the same weight. That is, even whilst attempting to consider accessibility and universal design, technology is socially constructed (Latour, 1980) and without a strong understanding of societal norms, technology, including gamification strategies, might have negative impacts, particularly as these design issues pertain to race, gender, and romance (Wilson, 2017). Designing for mobile apps inherently encourages automaticity because "good" mobile app UX seeks to minimize the cognitive load (Babich, 2018) in order to ensure that users do not get overwhelmed with too much information. In the attention economy (Beck & Davenport, 2001), it is impossible to get a user to commit to an action, such as a swipe or signing up for an email list without first getting her attention. Gamification is a strategy employed by companies to keep and retain users' attention.

Research also shows that aesthetics is another factor that contributes to influencing how users think and feel. Or, in other words, aesthetically pleasing things will capture users' attention for a longer period of time. Specifically, those who are deemed to have attractive faces capture the attention of users (Sui & Liu, 2009). The primary issue with mobile dating apps, then, is that users are objectified into aesthetically pleasing profile cards (see chapter on users), and it may be difficult to remember that users are humans rather than digital profiles. When users dehumanize

the profile card, the match candidate becomes a part of the total aesthetic experience. If users are not guarding against unconscious biases, factors such as race, age, weight, among others, may negatively impact certain groups of users. Indeed, historically, beauty or "ugliness" was perceived to reflect one's moral character and was often determined based on group membership (Bindman, 2002). In the widely cited study, *What Is Beautiful Is Usable,* Tractinsky, Katz, & Ikar (2000) determined there was a strong correlation between perceived design aesthetics and perceived usability, whereas the actual degree of usability did not impact the users' perceptions of usability. Therefore, this outcome implies: certain groups of users capture less attention from the non-self users and will have a less pleasurable experience on mobile dating apps because they are more quickly disregarded.

**Homo Ludens and Serious Games and Mobile App Designs**

A game is defined as: "a form of play or sport, especially a competitive one played according to rules and decided by skill, strength, or luck" (Merriam Webster, 2019). When we think of contemporary colloquialisms that refer to games, we can see that they follow this "form of play" that is played according to "rules." For example, "I'm game" means "I'm ready to play and engage." To "game the system" means to bend the "rules" in order to get one's desired outcome. To be competent and understand social rules and expectations means that one "has game." When something unexpected happens, thus shifting the understanding of the rules, we might say that that incident is a "game changer." In regards to dating, it has been called: "The game." A person who commences and or pursues many different relationships, sexual or otherwise, might be called "a player." Indeed, while there are social rules to follow, one's

competency at those rules helps to accomplish the goal of the game. Therefore, to add more gameplay elements to dating is in fact a game changer.

In 1938, Dutch cultural theorist Johan Huizinga coined the term Homo Ludens (literally, "playing man") to suggest that humans learned from play. The concept of serious games, or games designed for a purpose other than entertainment, progenated the contemporary form of gamification (Rapp, 2013). Non-digital forms (i.e. paper and pencil) games became popular as education techniques as early as the 60s. Gamification strategies have been used to motivate and engage individuals, teach individuals new skills, as well as change user behavior (Putz & Treiblmaier, 2018). Evidence suggests that these gamification strategies are effective (Hamari, Hassan, & Dias, 2018).

Gamification is a design strategy that implements elements of game play in non-game contexts (Deterding et al., 2011) and may also refer to the phenomenon that makes society increasingly game-like (Hamari, Koivisto, & Parvinen, 2019). Gamification manifests in and shapes cultural and sociotechnical systems and is intentionally implemented as a design strategy to ensure services provide the positive feedback and experience present in good games. (Hamari, Koivisto, & Parvinen, 2019). It is a subset of other motivational strategies, quantified self and social networking features, which are predicted to imbue all aspects of systems and services in the near future and are already increasingly augmented in existing services in order to increase user retention and engagement (Hamari, Hassan, & Dias, 2018). These strategies have been found to be effective ways of encouraging certain behaviors such as meeting health/fitness and educational goals (Hew et al., 2015).

However, despite the call for rigorous ethical considerations (Bogost, 2011; Schell, 2010), the framework for ethical considerations of gamification have yet to be fully realized (Rapp et al., 2018). Gamification has been dubbed as a type of "exploitaionware" because players gain only a small fraction of the entirely created value, while the company gains a large share, and the imbalance is exploitative (Bogost, 2011). The most important question to ask while analyzing a system that utilizes gamification strategies in its design is: "Where is the game?" Rapp et al (2018). The goals of the tech industry center around pushing out products and providing services. It is lucrative to keep increasing the number of users as well as retain current users. This goal may stand in direct contrast with the goal of a dating app user, which is to fulfill the basic need of human connection and ultimately remove the need for the dating app.o

In our current information economy, it has been long established that users have been commoditized into data (Pariser, 2011, Vaidhyanathan, 2011). Gamified dating then, furthers and complicates this point because users of mobile dating apps function as users (i.e. those who "swipe" on and "match" with other users) and as data (i.e. the personal information, consisting of photos and bios, which fills in a Tinder card). Gamification is defined as "The use of design elements characteristic for games in non-game contexts" (Deterding et al., 2011) and is often used as an effective "next generation" marketing technique (Hamari, Koivisto, & Sarsa, 2014, p. 3025) to increase user/consumer activity and loyalty (Zichermann & Cunningham, 2011). Data is "burdened by [the] structural baggage" of marginalization and privilege (Cheney-Lippold, 2017). That is, not all data are weighted the same. Therefore, gamification encourages users to sign in and swipe on individuals more frequently, but there are those who may be considered to be more "valuable" than others.

In formal games, there are rule books or guides that help all players to beat the game or at least learn the strategy. However, if one of the social rules embedded in the design perpetuates certain social biases (Friedman, 2010), these social biases coupled with the act of black boxing the gamified processes can lead to particularly detrimental outcomes for both the company and the user. Otherwise, users with a reasonable amount of self-esteem will cease to engage with the system (Ranzini & Lutz, 2017). In other words, this is an indication of poor design and may negatively impact users' sense of worth if they stay on the apps.

RQ 1: What observations do experts in the field have of Tinder and other mobile dating apps?

RQ 1a: What pain points, challenges, and/or opportunities do they talk about?

RQ2: What solutions do they propose for the aforementioned pain points?

## Method

### In-Depth Expert Interviews

For this study, I opted to conduct expert interviews with Asian men to ensure the solution to dating app design comes from members of a group that struggles with the current design. Although participatory design often refers to the layperson rather than experts in the field, the goals for this chapter are the same. I ask users who are also experts in these areas to help imagine and design a more "human, creative, and effective relationship between those involved in technology's design and its use, and in that way between technology and the human activities

that provide technological systems with their reason for being" (Suchman, 1993, n.p.).[14] Additionally, it allows members of this group the agency to put forth their suggestions in a way that speaks to their own experiences. When conducting expert interviews, the question of "What constitutes an expert?" needs to be considered. For this study, I define expert as an individual who has specialized training in the area of interest (i.e., game design, game production, game director, or game software developer) and/or has more than 2 years of experience in the field.

**Sampling Strategies and Sample Characteristics**

I conducted expert interviews (n=10) with Asian/American men who meet the following criteria: 1. Identified as Asian; 2. had experience using mobile dating apps; 3. worked on the West Coast so that they had experience with the West Coast Asian diaspora (to parallel the sample in Chapter 2); 4. and worked in the game industry and possessed familiarity with game design, production, and/or engineering. In order to avoid biased responses, participants could not work at any of the companies mentioned in this paper or any of their competitors (i.e. Tinder, Bumble, Hinge, Coffee Meets Bagel, OkCupid, Match.com, Plenty of Fish).

Due to the specificity of the screening criteria, I utilized a convenience sample. Although convenience samples are non-probabilistic and cannot be generalized to a population, this is a qualitative discovery-type project. I take an inductive, Asian-centric approach to ensure a group

[14] See Sanders, 2002 for more on participatory design.

that has been reported to do poorly on dating websites/apps lead the solution. One of the major limitations of this sample is that it is completely an east Asian sample.

**Study Procedures**

Interviews were conducted in person, because I needed to observe the interviewee interact with his phone. They lasted between 30 minutes to an hour (median: ~42 minutes).

Participants were asked to give their professional opinion on two mobile dating apps, one of which needed to be Tinder. The questions focused explicitly on descriptions of gamification strategies they see in the app, critiques of the design, as well as their thoughts on race. Additionally, I provided a list of actions for them to complete—similar to a usability test—and asked them to comment on specific interactions with the mobile dating app as it pertained to gamification. Finally, in order to create collaborative and practical solutions to address these issues, I created a prioritization matrix, which is a structured, objective approach to visualize the importance and viability of UX decisions. Each participant votes on certain ideas as those ideas pertained to his expertise (i.e., the engineers vote on functionality/feasibility whereas designers comment on aesthetics) (Gibbons, 2018). In regards to the prioritization matrices, generally the practice entails more interactions with other stakeholders. However, because these participants did not meet face-to-face, I took care to aggregate and analyze their feedback in a way that produced the most realistic results from all perspectives.

**Sample Characteristics**

*Table 7*

| Name | Occupation |
|---|---|
| Shohei | Digital Producer |
| Thomas | Engineer/Designer |
| Jason | Engineer |
| Davin | Marketer |
| Yung | Designer |
| Kenneth | Marketer |
| William | Data Scientist |
| Stephen | Game Producer |
| Frank | Producer |
| Jason | Designer |

**Data Analysis**

*Table 8*

| **TOPIC** | **AXIAL/MAIN CODES** | **SECONDARY CODES** | **DESCRIPTION** |
|---|---|---|---|
| **Critiques of the game** | Defining the game | | Experts provide critical commentary of the game |
| | | Offline | Experts refer to the social dating game as it existed before new media. |
| | | Online | Experts talk about the gameful components of online dating. |
| | Risks of the (online) game | | Experts talk about the potential risks to (gamified) online dating. |
| | | Objectification | Experts talk about the possibility of users |

| TOPIC | AXIAL/MAIN CODES | SECONDARY CODES | DESCRIPTION |
|---|---|---|---|
| | | | objectifying other non-self users due to the design of dating app. |
| | | Gambling | Experts talk about the "gambling components." |
| | | FOMO | Experts explain how the design and affordances of Tinder enable users to feel like they may be missing out if they commit to a person. |
| | | Power up | Experts talk about a personal "powering up" mentality users may experience while attempting to get better matches. This is closely related to the "FOMO" and "Objectification" codes. |
| | | Social norming | Experts talk about how users need to be "socially savvy" enough to figure out the "rules" to the game. |
| **Solutions for the Game** | | | Experts propose solutions to increase engagement. |
| | Random encounter | | The system provides messages prompts randomly so that users can engage with other users without matching. |
| | Additional stimuli | | Using additional information to foster connection and increase engagement. |
| | | Quizzes | Experts suggest using popular quizzes to engage users. This is coupled with "badges" below. |
| | | Badges | Users receive badges which visually communicate something unique about their |

| TOPIC | AXIAL/MAIN CODES | SECONDARY CODES | DESCRIPTION |
|---|---|---|---|
| | | | interests/personality after completing quizzes. |
| | | "Pings" | The game reminds users to engage and provides prompts. |
| | Keeping it simple | | As a caveat, experts discuss keeping the cognitive load low, which may put certain limitations of engagement design. |

Because these are expert interviews, I have opted to utilize lengthier excerpts as to maintain the integrity of the entire thought.

## Analysis

This analysis is organized linearly: Respondents explain the ways in which mobile apps are gamified; the majority of the experts provide critique on non-critical design strategies (i.e., design strategies do not take into consideration power dynamics and the impacts thereof) of mobile dating apps and the psychological impacts these poor design choices might have on their users; and, finally, they suggest practical design changes on a conceptual level as a more ethical approach to gamifying mobile dating apps.

**Setting the Game Up**

This paper is about gamification and design strategies, and users talk at length about the ways in which mobile dating apps, particularly Tinder, capitalized on and incorporated the rules of "the [dating] game" into their UI. That is, the social rules of dating inform to some extent the rules of the digital game. Jason states,

> *There was always a game that you played when it came to finding a partner and picking a girl, a woman, at a bar or at a social setting. That game is infinitely more complex and nuanced, and much more exciting because there's an emotional attachment to playing that game. This game (i.e., Tinder) is as dumb as clicking.*

Although Jason fames his comment in a way that suggests there is little similarity between the "real life" dating game, which he argues is a far more strategic game of approach and perusal than mobile dating apps, his observation of social rules of dating is echoed in various sources (i.e., Strauss, 2005).

Shohei, a game producer, on the other hand, immediately notes the gamification strategies built into Tinder's UI, which answers the questions "Where is the game?" (Rapp et al., 2018, n.p.):

> *Oh, I can level-up my character. You can keep leveling—and nobody's going to get to level 100, so you're going to keep trying to get stronger and stronger, which in dating is the same thing now… If you want sex and get sex, you beat the game. But then in the end, I like looking for a relationship, so it's hard to—I guess I'm earning points, you could say, if I match with somebody or talk with somebody, but I don't really win until I actually form something.*

Shohei explains the "game" in the dating app entails "level[ing] up" oneself by finding a potential date who is prettier, smarter, funnier, or in possession of any other desirable qualification in so long as she is "better" or a "level-up" from the last match. In which case, gamification encourages a "powering up" mentality, a popular game concept, which may be detrimental to a user, depending on the goals of the user. Shohei underscores the idea of "dating up," which has its roots in the idea of the "FOMO" (i.e., fear of missing out)[15]. Because the design of Tinder allows for accessing a large quantity of potential matches, the likelihood that a user continuously looks for a better match because of the fear that she may "miss out" on her best match increases. It is easy to fall into this level up mentality of finding a better partner. This is specifically the case at the initial stages of meeting a person and assessing one's interest in potential romantic partners.

Applying this gaming concept of leveling up to dating may increase user retention and engagement because a committed, monogamous relationship ends the usages of mobile dating apps. That is, although Tinder brands itself as an app that enables users to meet in real life, by offering such a pool of possible mate candidates at such a minimal investment, users may be tempted to keep playing and "leveling" up their matches, each more attractive or engaging than the last. Bauman (2003) went so far as to argue that technological change has "liquefied" the idea of life-long partnership and transformed love into a type of commodified game. Since this seminal book, scholars have pushed back with more optimistic and moderate perspectives on the

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[15] FOMO is a popular area of inquiry for Social Networking Sites (SNSs), such as Facebook. For more, see: Abel, Buff, & Burr, 2016; Alt, 2015; Baker, Krieger, & LeRoy, 2016; Christofides, Muise, & Desmarais, 2009; Hetz, Dawson, & Cullen, 2015; Valkenburg, Peter, & Schouten, 2006

impact technology has had on dating (Hobbs, Owen & Gerber, 2016); however, Shohei and Jason suggest that the design of mobile dating apps, swipe apps in particular, have considerable lessened the barriers to participation.

Mobile dating apps like Tinder make it easy to access a large pool of other potentially interested users because it exposes a user to such a number of potential matches that the user might have a difficult time selecting any match when the stakes are low. That is, mobile dating apps function to create initial meetings. Because the stakes and the effort that has been put in are so low, it is easy to give it up. So, in sum, this gamification strategy keeps users engaged and appears to be a fairly innocent strategy as the app itself does not overtly prevent users from matching with someone and exiting the app. Rather, the sociotechnical system here facilitates and encourages users to keep "leveling up." The users, who likely believe, though perhaps not consciously, the neoliberal conjecture that competition with oneself and others to find "the optimal" match, attempt to find their best match by sorting through the largest number of match candidates. This may produce a sense of "FOMO." Because the game of finding the most optimal match is built into the system—new users are constantly joining Tinder—to halt the pursuit for the "best match" ultimately may put a halt on "leveling up." The users think they have the agency to "keep playing the game" when in reality the game design and the level of accessibility strongly encourages this type of behavior.

Davin adds nuance to Shohei's observation:

*People do not want and are not enticed to purchase an automatic upgrade. The upgrade itself is not what they're purchasing. What they want to purchase is the chance for an upgrade, this idea of—it's the reason why gambling is so addictive. If you won every*

> *single time, what would be the excitement in that? There is an inherent excitement in this idea that you could gain more or you could lose more. The thing with Tinder is that they don't need to build a gambling component in it because the system itself is a gamble. This idea that you can purchase for upgrades, which increase your chances of finding—whether it be to find someone that you can hook up with or a long-term partner, but at the end, that's all it is—a chance of it. I think that in doing so, A, good on Tinder for being smart enough, but B, also kind of fuck you to Tinder—because they're praying on the habits of gambling, this addictive gambling personality that I think we all have, but even making it worse by adding in a layer of emotional desperation.*

In other words, it is not just the urge for the user to want to "level up" (thus never or delaying commencing a relationship), it is the chance to level up, or the chance to match. Whereas Shohei's comment is relatively straightforward and suggests that the user has all of the agency, Davin's comment illuminates the ways in which the system design exploits "this addictive gambling personality that I think we all have," which could ultimately prevent the user from deciding to pursue another user (King & Delfabbro, 2018).

Yung adds a layer of nuance to Davin's comment. He understands one's agency is not the only determining factor to success:

> *When you reach your hundred swipes you have to stop using it, but then you want to keep using it. Let's say Bumble: I get tired of Bumble. I don't even want to use it anymore for dating. I don't feel like I need to do it, but with mobile games, what they do is they stop you from doing it. You're in your little high and they want you to stay in that high, but then you'll—you're getting withdrawal, and then when you finally get the chance 24*

> *hours or 12 hours—or whatever it is on [Bumble] where it resets—you're like, "Sweet. Now I can start swiping again." It's like you're in that habit loop, and so that's a manipulative way of controlling your consumer, which it's not bad. Manipulate is a really negative sounding word, but I think it gets you in a good habit. If that is your goal is to try and meet somebody, because otherwise you might just wear yourself out and then you don't want to use it anymore, and you didn't accomplish your goal.*

Yung marries the idea of companies exploiting the addictive tendencies of users and underscores the manipulative power of mobile dating apps in a positive manner when he states that the addictive tendency of swiping may keep a user swiping long enough to find a possible match when he otherwise may have opted to cease looking for matches. On the other hand, one could argue it is this manipulation that wears (certain groups of) users' out: If Asian men, for example, struggle more than other groups to match, this addictive, manipulative act of swiping without matching or meeting up with another user could potentially have a more negative impact on these user groups, which underscores the need for critical and ethical design strategies.

Kenneth talks about the "rules" of the game and negative psychological impacts these rules can have on users if they are unaware of them:

> *It's like playing the numbers game. When I started playing that a little bit better, I started seeing a huge increase in the amount of hits I get, so I'm like, "Okay, cool. I just need to know how to play the game." It's not that my self-worth is bad, it's just that I need to know how to play the game. A lot of people don't understand that, which has really bad social ramifications. I was talking to someone who was like, "I never get hits on dating sites," and I'm just like, "Oh." He was like, "Yeah, I've never gotten a single message on a*

> *dating site," and I'm just like, "Oh, shit." Like, that must suck. I've seen a lot of posts on the internet that are just people being sad and depressed about it. It is pretty depressing, to be honest*

By looking at overall numbers, Tinder might seem like a hugely successful company as it boasts 50 million active users per month, an average of 12 million matches per day per 1 billion swipes (Bilton, 2014). Here Kenneth attributes the negative psychological impacts of failing to match with another user to not understanding the rules of the game. In other words, there are certain strategies that users might use within the app itself to increase their chance at matching. This might include, selecting specific profile photos, crafting a certain type of profile, or employing a specific messaging strategy. However, we can also infer by comparing Kenneth's comment to other interviewees' comments that if all users follow these specific rules of the game, users would not uniformly receive the same levels of success. In addition to lowering a users' sense of self-esteem, this lack of success on a mobile dating app may encourage users to purchase upgrades (i.e., more swipes, more superlikes, etc).

**Need for Ethical Design: Negative Impacts of Damification**

Thomas, a UI-Designer-turned-software-developer, talks about the objectification that happens when rapidly swiping on a large number of profile cards reduce users to entertainment:

> *Gamifying anything social, I think, is very dangerous…. I've seen people—they take Tinder, they give it to their mom, and they're like, "Hey, Mom. Which one's ugly? Which one's pretty?" "Ha ha ha, that person's so ugly." It's like, "Dude! There's a person*

> *behind there! Are you kidding me?" It's kind of dangerous because it defaces the value of the person, especially when you start gamifying things.*

When the gamified dating app is layered on top of the social game of "dating," and the interface design is too seamless, it becomes exceedingly simple to forget that each profile card is another user, and that each user is likely looking to match and connect to another human being (See users chapter for more detail). Notably, later in the interview Thomas personally discloses he had major difficulty with dating apps, and it is this precise difficultly that may enable him to think through the empathetic design strategies, he suggests at the end of this paper.

The users in the previous chapter show that users can forget that they are interacting with real users and objectify other users into simple profile cards. Of course, the user is not the profile, but by objectifying other users and distancing oneself from the very human nature of connecting with another, it becomes more likely that they may fall into a "level up" or "gambling" mentality. What users want is the thrill or chance to possibly level up. It complicates the straightforward nature of the "game rules." Davin takes it a step further by clearly stating that Tinder is exploiting the desires of people to connect with one another by adding a layer of "emotional" desperation. He states that "you could lose more," which, thanks to the black-boxed nature of mobile dating apps, a user is not too aware (Pasquale, 2015; Rosenberg, 1982). When a user pays for Tinder Gold, for example, they see that they have invested $14.99/Tinder to have increased access to "winning" (i.e., unlimited swipes, 5 super, users can see who's already liked them, global passport, one boost per month). They receive positive feedback such as the ability to see who has already swiped on them. However, the question becomes: what don't users see? They do not see how many people who have swiped no on them or they may not know of the number of people who have actually liked them they've been boosted to. In addition to this,

being able to see the number of people who have swiped right on the user can also have a negative impact.

Yung talks about the impacts objectification and automaticity can have on users when mobile dating apps prey on those who are less successful to turn a profit:

> *Let's say that you're my friend that hasn't found a partner through Tinder, so you feel like a loser because there's 1.4 billion users and you haven't found anyone, which means you either must really suck or no one likes you or your face is fugly. What that leads to is them wanting to purchase upgrades.*

Unlike online dating, where users are able to provide a plethora of information about their social status, interests, and other characteristic traits, mobile dating apps tend to focus exclusively on the visual. Common fitness-related evolutionary theories suggest physical attractiveness is of importance in the dating world; however, this perspective does not take into consideration the standards of physical attractiveness as they are informed by racial, socioeconomic, and geographic differences. Mobile dating apps likely, intentionally or not, capitalize on forms of physical attractiveness that diverge from the Anglo standard. Therefore, Yung's observation that a person who is "fugly" is both true and complicated by difference.

Frank corroborates this sentiment in his statement,

> *Because if you're not attractive, you're going to feel like shit the whole day. The thing is, if you pay for OKCupid, you can filter by attractiveness, so the people who are on low-attractiveness levels never get found. It's like how capitalism runs away, and the rich get richer—the pretty get more. It's pretty bad. If you're just ugly, you're just not cut out for online dating, and that sucks… The main concern I*

> *have about online dating is just the psychological effects of online dating. I know diving into the serious psychological factors and why people are depressed from it is kind of ideal.*

Six of the 10 experts discussed the "psychological effects" of online dating: The apps have the potential to "depress," in the words of Frank, users because of the constant negative feedback (i.e., not matching with another user). There are rules to these games which are constructed by the developers and designers. Users also participate in creating and enforcing rules, thus surveilling each other in a type of omniopticon, where the many surveille the many (Mitrou et al, 2014). However, critical/cultural theories have long pointed out the consequences on groups of difference (Lievrouw & Livingstone, 2002; Nakamura & Chow-White, 2013). Learning the rules of the mobile dating app culture often entails adjusting one's behavior to the mainstream expectations of courting rituals, as they are informed by a Euro-centric standard. Practically speaking, this might mean expressing emotions in a way that is uncomfortable for a user.

Finally, William explains the way he, as a gaming scientist, attempts to gain an understanding of his performance by logging his own metrics as a means of undoing the blackbox of Tinder's ranking system:

> *As a data scientist, you're supposed to be taking metrics, so I started taking that approach. I even have different sheets for different apps. So Tinder, I'll keep track of how many swipes I do, how many super likes, if it's a success, or if I get a super like, how many matches I get, if I send a message… Then I'll keep track of if they replied. If I received a message from them first—like they match with me and they send me the message first… I also keep track of if they've unmatched me or not, so maybe I might*

> *have said something, or sometimes they just randomly just do it. Maybe they found somebody else, or totally get off or something like that. But me actually closing was only .1%... of all the swipes I'd been doing, which—I don't know. I guess maybe when you look at the numbers, you're like "Holy shit, that's pretty bad."*

William's scrutiny of the data that Tinder hides from its users might help to explain why users may feel worse about themselves after using a mobile dating app. Success on a mobile dating app is particularly difficult to come by, especially for certain groups of users. Therefore, while Tinder and other digital dating services boast of reducing barriers to finding a partner or possessing algorithms that ensure participants find "true love," these claims are not forthcoming about the barriers users might face and the impacts of those barriers. These invisible barriers inhibit a user's ability to complete his goal.

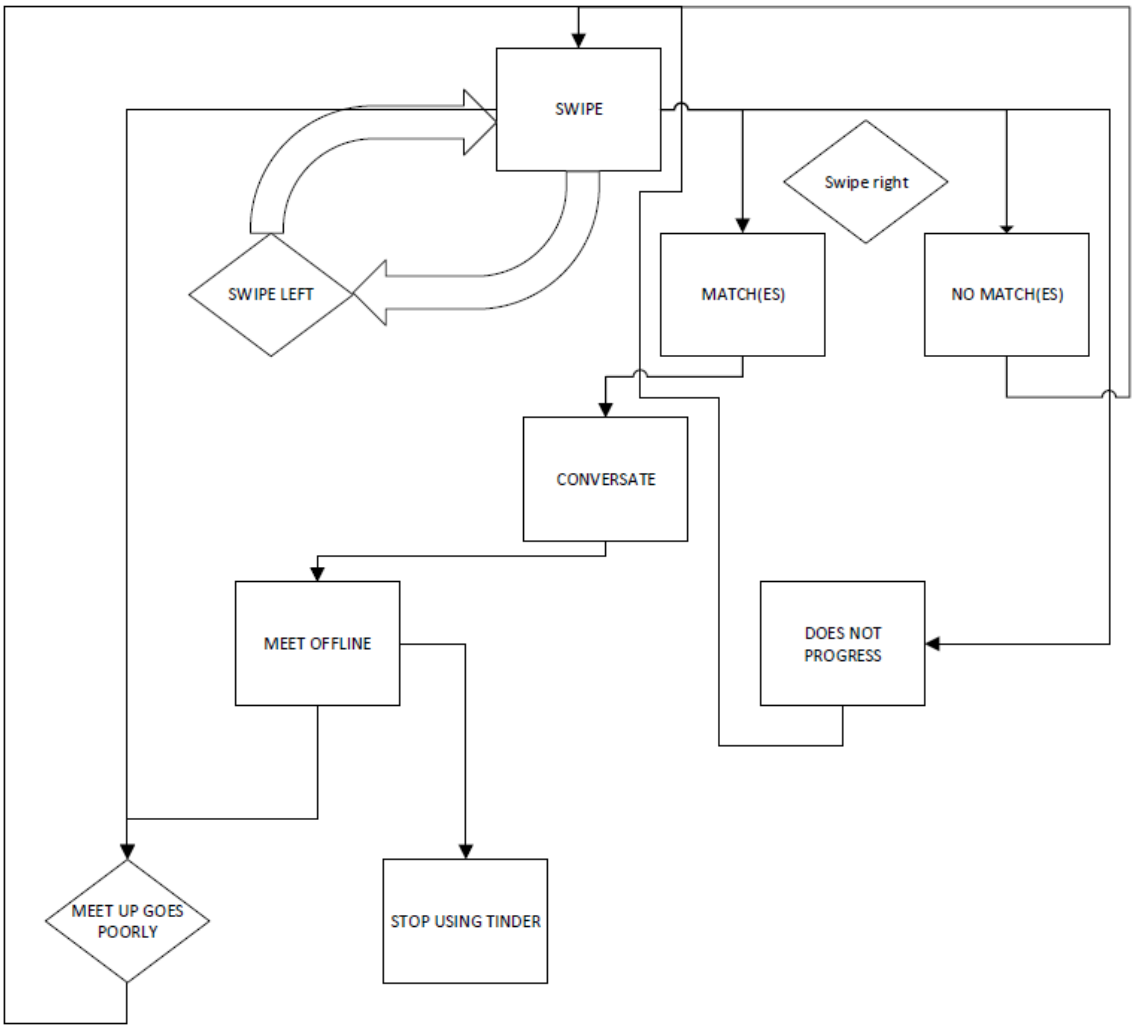


*Figure 3: Flow chart of Tinder swiping process*

# Solutions

## Ethical Framework

It is important to establish a conceptual framework for ethical gamification. Gabe Zichermann (2012), the CEO of two gamification service providing companies, Gamification Co. and Dopamine, outlined the "Code of Gamification Ethics" as follows:

As an accredited Gamification Designer, I pledge my best effort to act in accordance with the following principles when creating systems of engagement:

1. I will strive to design systems that help individuals, organizations, and societies achieve their true potential, acting consistently with their values and enlightened interest.
2. I will not obfuscate the use of game mechanics with intent to deceive users about the purpose or objective of the system.
3. Where practical by law and contract, I will make an effort to share what I have learned about motivating behavior with the community so that others may leverage this understanding to advance society and the state of the art (Zichermann, 2012).

Although this "oath" of ethical gamification design strategies is important because it serves as a conceptual roadmap to designing ethical products, participants in this study provide their thoughts on ethical gamified solutions that will help increase users' retention and engagement while lessening the negative impact on users' self-esteem.

## Proposed Solutions

To “emancipate” any given group, it is necessary to critically think through and derive solutions that will be beneficial to them without, ideally, upheaving the current design conventions that may otherwise be considered a “success” for the dominant group. It is a common practice in applied fields, such as Psychology, Health Communication, Education, and in STEM to provide tested interventions to alleviate an issue or to improve an existing condition or situation (such as Hanus & Fox, 2015; Johnson et al, 2016; Zhao, Etemad & Arya, 2015). Because the goal of cultural studies methods is to emancipate disempowered groups, this sub-discipline and methodological approach in communication is well suited to thinking through design problems in a manner that provides real world solutions that benefits groups of difference who often face moments of disempowerment due to their differences.

In this next section I outline the solutions that the participants propose as Asian men, users of dating apps, and as working professionals.

### 1. Random encounter.

Michael proposes the idea of random encounters. A random encounter is an icebreaker/conversation starter that provides an onscreen prompt to encourage users to respond to a “fun” questions, statement, or other object (such as a meme or news headline, for example).*:*

> *[It would be helpful] if there was an in-app game, like "Okay. You make that first move," because there's Facebook games that do that. Maybe something like that, or just a random conversation starter or an icebreaker suggestion or something like that. You could even rank responses by similarity and recommend matches that way.*

The users who opt in have their responses ranked [i.e. organized] by an algorithm. Those who respond similarly are paired together and given the opportunity to chat about the prompt they both already commented on. All profile information will initially be hidden from the two respondents as the goal of this design method is to give everyone the option to engage in conversation and connect with another individual without acting on unconscious biases.

Providing a unique prompt alleviates the stress and repetitive nature of initial messages and allows a different type of engagement. It reduces the cognitive load on the user as they are simply responding to an object, rather than crafting a unique opener. The object immediately gives users the chance to see how their potential match interacts with/responds to an object. It creates commonalities and reduces the effort that users need to put in to start talking. For all users, this option to engage in conversation adds a break to the typical linear process of meeting someone. The random prompts provide a social-network/self-comparison option so that users who do well on dating apps have a compelling reason to participate in the random encounter. Finally, this resonates well with groups who are unable to get to the point of conversation as they do not pass the preceding barriers to engagement. By giving all users the ability to engage using this random encounter function, mobile dating app companies will 1. Reduce unconscious biases; 2. Increase loyalty to the app as it now provides a social-network type engagement and an interesting, relevant prompt; 3. Increase use engagement and retention because all users are more likely to connect with another user, and are, therefore, less likely to feel intimidated by failing to clear the traditional barriers to matching.

**2. Quizzes, badges, "pings".**

Although quizzes, badges, and "pings" in themselves may not seem to directly contribute to "ethical" design solutions, implementing these options, as per the recommendation of

participants, may afford more opportunities for users who would have otherwise been dismissed. For example, users talked about the importance of reminders, especially as dating apps are competing for attention with other dating apps. Notifications may remind a user to revisit someone she was considering but had already forgotten about. Shohei, takes this recommendation a step further by suggesting a conversation starter:

> *There's nothing that says, "You haven't talked to so-and-so" after a while. For example, if you had something that would detect if you actually had a conversation before—let's just say you actually were interested in this person, it would just be like "Oh, you haven't messaged this person in a while, and here's a conversation starter."*

The conversation starter lessens the cognitive load for users and creates a neutral conversation topic that facilitates conversation for both the self and non-self user. While this has broad appeal to all users, it may be particularly beneficial for users, such as Asian men, who now have the opportunity to communicate their personality.

Another gamification strategy, which focuses less on forced interactions but provides users the space to feel like they can better represent themselves, is to incorporate users' desire for more quantified-self data with well-established gamification strategies, such as badges. Previously, participants discussed the desire for more feedback. However, companies need to be selective with the type of data they provide, lest they provide users with negative feedback that lowers users' self-esteem and drives them away from the app. By incorporating psychographic-like quizzes, and coupling popular culture into the results, companies would be able to provide users with more neutral data/feedback that does not directly translate to "progress." The quizzes also increase engagement levels. Lee states,

*There are game designs that are—those personality tests that are silly, they're like "What character are you?" I could definitely see those being a lot more integrated into this like games, then you could get crossovers. You could be like "Hey, what Marvel character are you?—sponsored by Marvel." That could be a little part of your avatar that shows up.*

As experts have previously stated, users want the competition and the chance to win or upgrade. The purpose of these strategies is to level the playing field for specific groups that have less "success" on mobile dating apps, and the result is to increase engagement and retainment. Vis-à-vis Lee's suggest, all users may benefit from visually communicating facets of their personality via badges or other symbols. Further the act of taking a quiz and "achieving" a badge both 1. Creates a common activity that users have already engaged in. For example, the completion of a Marvel quiz by two interested parties suggest they are both into Marvel, have completed the action of taking the quiz, and the badge then acts a symbol that reminds non-self user that, an Asian man, for example, is more than his race and may share common interests. 2. The badge provides gamification experience of being "awarded" for taking a quiz.

**3. External solutions.**

Realistically, no designer will suggest that a company should make its product's UI more bloated. This goes against good design principles. Therefore, the issue is to find the point between ethical strategies and good design. If Tinder and other companies are concerned about bloating their UI through changes made directly to app, they can add transparent tips to their own blog, such as the OKC blog. They can show data trends to address users without making them feel threated and are able to provide some insights so that their design is not completely black-

boxed (Pasquale, 2015; Rosenberg, 1982).

Will states,

> *That new tap feature [on Tinder] was convenient. I liked it when they implemented that simplified feature [because] sometimes I just use my peripheral vision [to look at profiles], so this really helps.*

That is, Tinder can use its data for insight to their target demographics dating habits: Who is matching with whom? Who has the highest success rate and what are they doing [sentiment analysis]? How many matches per 100 swipes broken down by gender and race? How many matches result in conversation? And, should Tinder do its own research, how many of those conversations lead to something offline? By being transparent and offering this baseline data, users have access to some of the rules of the game (e.g., men may need to swipe 100 times to get 5 matches, whereas women may only need to swipe 14 times.) and will know how to situate themselves within the context of Tinder's dating game.

**Conclusions and Limitations**

Because Asian men grapple with a number of racial stereotypes which may decrease their chances of being successful on a mobile dating app, this chapter provides the opportunity for Asian men to drive the changes they would like to see in the design of mobile dating apps. The author understands that focusing on Asian men may seem exclusionary as it does not represent all people of color. However, given the scope of this specific chapter and the fact that it is a part of a larger project examining contemporary Asian-ness in technology, a more specific sample generates the results the author is seeking. Furthermore, this type of inductive methodology helps

to de-center whiteness and other forms of social dominance, thus opening space for different viewpoints as they are articulated and framed by difference.

The reason why it is difficult to talk about race in this study is because the metrics through which users gauge success make race invisible. That is, when designers, engineers, and other specialists talk about increased engagement, those measure of engagement tend to exclude race. For example, by talking about the number of points (i.e. matches) a user receives, race might be a confounding variable that fails to be addressed. Although the invisibility of race may be illustrative of a problem in industry, the critiques of mobile dating apps and solutions proposed here, benefit from the ambiguity of race. All users would theoretically have a better user experience because these issues and suggestions apply to all users regardless of race or gender, even though the solutions might be influenced by race and gender. Concretely speaking, if Asian men are considered to be one of the least successful groups of online dating and mobile dating apps, they are constantly thinking through strategies that might make their experience more successful. One of the strengths of this paper is also one of its limitations: By interviewing Asian men exclusively, this paper is able to thoroughly cover the perspective of a group of users who perform poorly on mobile dating apps and online dating, despite the fact that Asian women tend to be one of the most successful groups on mobile dating apps and online dating sites. The unique position that Asian men occupy thereby allows them to think through the issues they have had as well as provide solutions that they would like to see implemented.

# CONCLUSION

This dissertation was designed with the intention of following the circuit of culture (Hall, 1997) to obtain a comprehensive understanding of online dating, race, and technology and to provide a solution the critiques made. In Chapter 2, I observed that Asian men create "desirable selves" differently than others via a content analysis of Tinder Profile Review Week on Reddit; I explored those strategies and probed for barriers in Chapter 3; and in Chapter 4, I worked with Asian men to come up with design solutions for the issues brought up in the preceding chapter.

In Chapter 2, I set out to empirically establish that Asian men—a group which has been noted to have difficulties forming romantic relations in online and offline settings—differ from others in their creation of desirable selves on mobile dating apps. I observed and analyzed their construction of desirable selves on the subreddit r/Tinder Profile Review Week thread in relation to other men who sought help in that online space and learned that there are differences in both their performances and types of responses they receive. This demonstrated that the strategies that they used, at least in this space, did differ and, unsurprisingly, so did the responses to those strategies. This chapter demonstrated that men are engaging in help-seeking behaviors. This deviates significantly from the tenets of hegemonic masculinity, which suggests men, particularly men of color, put on a "tough guise," but instead suggests that receiving help is important to them.

In the third chapter, I conducted in-depth interviews with Asian men on the West Coast to more deeply interrogate the experiences of Asian men on dating apps to gain insight into barriers faced and strategies employed. I went to three different cities on the West Coast (i.e., Honolulu, Los Angeles, and Seattle) to capture similarities across different locations and to underscore the differences among these locations as well. In hearing them talk about the barriers they faced and

strategies they employed to circumvent those barriers, I was constantly reminded of the relationship we have with technology, reminded how technology both constrains and enables us. The promise of romantic love, connection and companionship, and/or fulfilment of erotic desire was enough to cause users to keep using the app even after they faced varying levels of (un)success. In this chapter I detailed that all Asian men used a number of strategies to be desirable. However, the importance of representations and exposure to diversity within their city appeared to impact those strategies.

Finally, in order to provide resolution to the observations made in Chapter 2 and the critiques made in Chapter 3, I worked with Asian men who worked in the [video] game industry to think of ethical design solutions which are more inclusive because they offer users ways to challenge or push back against unconscious biases and allow opportunities for all groups of users to engage with one another. In order to do this, participants first defined the parameters of the gamified aspects of mobile dating apps, with an emphasis on Tinder. They then postulated and provided anecdotes about the impacts of the game(s) on users. Finally, we brainstormed suggestions that stemmed from their experience of Asian men who used dating apps but would assist all users in making more meaningful matches.

All users should have a fair chance at meeting another person (or many others) via online dating/mobile dating apps. While the technology *appears* to facilitate this, it is often, as evidenced throughout this dissertation, a site of exclusion. This is far from surprising as many scholars have explicated how technology is built by humans, imbued with their biases, and always has consequences. In the same way that Amazon Prime, an expedient shipping service for Amazon Prime customers, has been criticized for perpetuating shadow legacies of redlining black neighborhoods through the exclusion of these neighborhoods (because of “low

subscription numbers") (Ingold & Soper, 2016; Talbot, 2016), or in the same way voice recognition has more difficulty "understanding" women (Bajorek, 2019), it has been deeply problematic to me that a dating app, which is meant to facilitate connections to one another, can ultimately serve as major barriers for certain groups of users from forming these connections. The reason that I pursued a research topic that engaged with race, gender, relationship formation, and technology is because if the need for safe and secure connection in romantic relationships are universal (Brubacher & Johnson, 2017), then inquiry of technology that claims to facilitate the formative period of relationships must be pursued as well.

To tie this back to the introduction of this dissertation, each of these chapters engage in a specific facet of Hall's Circuit of Culture. The content analysis (i.e., textual inquiry) looked at Reddit as a cultural artifact. Based on the observations made within this chapter, the third chapter on users served as the audience component of the circuit of culture. By conducting in depth interviews with users to see how they exercised their agency and where they felt constrained by technology and/or society, users were able to define what they perceived that they could and could not do on a dating app. Finally, chapter four, the chapter on gamification served as the production component of the Circuit of Culture, because Asian men were able to offer and theoretically "produced" solutions to issues they experienced.

As I finish this dissertation, I wish to echo a coworker who articulated his desire to build a dating app product that *creates a culture* of integrity and respect. Indeed, building a technology or iterating on an existing technology takes us, in some ways, to uncharted territory, if only because it has never been done in that specific way before. Through this dissertation I, too, hope to have contributed to creating and designing a culture of inclusion, visibility, and empowerment

for those who use technologies assist their journey seeking out another and building connections.

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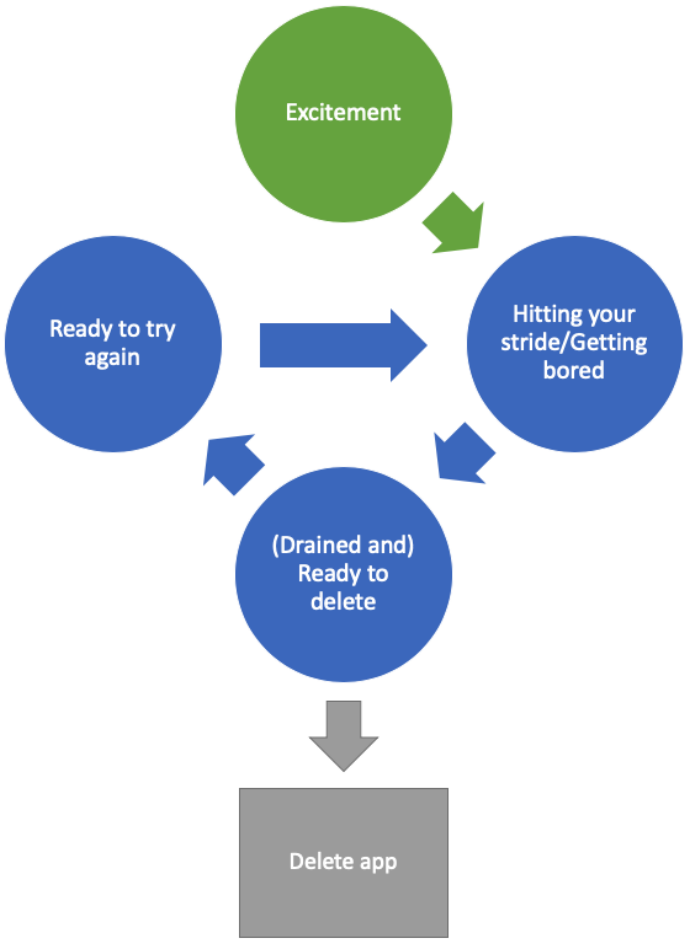
# APPENDICES

## Appendix A: Dating App User Journey

Note: This was written for a lay audience.

### Overview

I dove into the emotional journey users go on when they use a dating app and identified 4 key phases (excluding deletion):




**1. Excited/nervous for the beginning:** Users use dating apps for love and casual sex, validation, excitement, and for the ease of communication.

**2. Hitting a stride/Getting bored:** Depending on whether users have a positive or negative experience on dating apps, they either feel like they are "hitting their stride" or "getting bored" with the app.

**3. (Drained and) Ready to delete:** Users have either met someone or are struggling to meet someone and need a break at this point. They opt to delete/stop using the dating app(s).

**4. Ready to try again**: Hopeful and enticed by the large number of singles online, users return to dating apps.

**Excitement for the Beginning**

Users decide to start using dating apps for obvious reasons, **such as love and casual sex, and less obvious ones, such as validation and self-worth,** which are accrued through and/or correlated with number of matches, messages, and likes. Users download apps for the **titillation and excitement** of possibly meeting someone new using a once-taboo technology. Finally, mobile dating apps afford incredible **ease of communication** by eliminating barriers such as 1. determining whether someone is single and/or interested in pursuing some type of relationship, and 2. providing a means of communication within the app (rather than asking for a username or phone number).

Regardless of the reasons, **the first day is the most important and largely determines whether users keep or delete the app**. The first impression of the app should be that it is easy to use, fun, and efficient. Otherwise, users will delete the app in and search for another to use.

Profile building enables users to engage in impression management strategies which include **tasks such as selecting photos, syncing additional apps to convey more information about personality and interests (such as Spotify, IG, or, in the case of FBD, IG Stories).** As users select profile photos to communicate their most desirable self, profile building should be fun.

**Hitting Your Stride/Getting Bored**

At this point, users' experiences diverge. Different groups of users (which can usually be broken down along a variety of differences, such as age, gender, (dis)ability, sexuality, race, etc.) have different experiences on dating apps.

Users start realizing that dating apps, despite the fact that they lessen barriers to engagement, still require work. The sheer assumed number of missed matches or rejections beings to weigh heavily on users especially if these numbers are not offset by positive feedback. The monotony of the app may contribute to boredom and fatigue as well.

**(Drained and) Ready to Delete**

Based on their unique journeys (see Table 1 below), **users have either successfully accomplished their dating app goal (e.g., meeting someone for romantic or erotic purposes) and delete the app due to their success**. However, more likely, users delete apps because 1. The user was already in a relationship but was looking to be titillated, looking for an ego boost, considering leaving current partner, or simply curious; 2. The user was unsuccessful on the dating app; or 3. The user couldn't find what s/he or was looking for on the app (e.g., user could only find other people looking for hookups when user was interested in pursuing a long term relationship.)

**Ready to Try Again**

After taking a break from dating apps, users feel refreshed and ready to start again. Even if the initial excitement of dating apps has worn off, access to a large quantity of single users and the ease of communication can’t be beat.

*Table 9: Differences between positive and negative dating experiences*

| Stage | Positive Dating Experience | Negative Dating Experience |
|---|---|---|
| **Profile Building** | User feels proud of their profile (i.e., feels that it accurately represents their [best] traits) | User does not feel proud of their profile. This may be due to factors such a low self-esteem or a lack of photos to use. |
| **Receiving Feedback** | User receives positive feedback through likes, matches, messages, etc. | Receives limited to no positive feedback on dating apps (e.g., user isn't hitting minimum barriers to engagement such as matching with others) |
| | User is not overwhelmed by quantity of feedback | User receives unmanageable amounts of feedback on dating apps; can't manage matches, messages, etc. |
| | | User receives unwanted feedback from others, such as inappropriate messages or photos. |
| **Quality of Matches** | The user perceives people with whom s/he matches, message, like, etc., to be desirable | User has been catfished, perhaps on more than one occasion |
| | Alternatively, if the user does not perceive the people with whom s/he matches as desirable, the user perceives that s/he has the capacity to improve or "level up" their matches | |
| **Utilizing the ecosystem of dating apps** | User is able to tap into the ecosystem of apps to ease the shortcomings of other apps/prevent app burn out. | User doesn't do well even when tapping into an ecosystem of apps |

# Appendix B

## SWOT Analysis of Mobile Dating App Market

A SWOT analysis is a competitor analysis used in UX and market research to determine the strengths, weaknesses, opportunities, and threats to a product or service. I include it here to situate Tinder, the app upon which this dissertation is built, within its competitive market. Additionally, all apps mentioned in the Table 1 are mentioned by participants in future chapters and can be used as a quick reference points for similarities and differences between apps.

*Table 10: A Strength, Weakness, Opportunity, Threat (SWOT) analysis of popular mobile and web dating apps with additional information to provide a brief but concrete introduction to the difference between popular dating apps.*

| | Tinder | Bumble | Coffee Meets Bagel | OkCupid | Hinge |
|---|---|---|---|---|---|
| Strengths | Ease of matching;<br>Access to a large quantity of users; geolocation means meeting there are less barriers to meeting up; mutual matching ensures that there is a mutual interest between parties | Females need to message first; time constraint and its associated "pings" encourage users to respond to one another; can match with friends via the "BFF" option | Limited number of "beans" encourage users to be more mindful with whom they match. Not overwhelming. | Traditional online dating sites affords space for more types of information (Rather than being image-centric); allows filtering by a number of different criteria | Aesthetically pleasing; provides more opportunity to give and receive positive impact because users are able to like and comment on specific segments on the profile |
| Weaknesses | Too much automaticity | Too much automaticity; time constraints may mean that people lose | Limited number of beans means that people are able to cast the net as widely. | Bloated UI when compared to mobile dating apps. This was | Google Play reviews suggest that this app is extremely buggy. It fails to send |

| | Tinder | Bumble | Coffee Meets Bagel | OkCupid | Hinge |
|---|---|---|---|---|---|
| | | matches that they did not want to lose | According to comments in the play store, the UI appeas to be buggy and not as intuitive as other apps. | originally designed as a website rather than a native mobile app. | message notifications or erroneously notifies users that they have messages when they do not. Many reports of fake accounts. |
| Opportunities | Can increase forms of engagement | Can increase forms of engagement. This is particularly the case as there are more barriers to engagement | Better UI | Because this app was originally designed for a web platform, some of the changes it has made to parallel native mobile apps might be confusing. | Overall, users seem to be the most satisfied with Hinge as it directly responds to many of the design issues of the aforementioned apps. |
| Threats | Lack of engagement--too much automaticity. All tech has the risk of trying to stay relevant. | Additional barriers to engagement include the time limit for both parties to respond in 24 hours | Smaller user base means people will not have as many options | If users are used to the web version, they may find the app to bme buggy, slow, or lacking the full set of features | Because there is a 10 like limit, users may turn to other apps to fulfill their expectation of plentiful likes. |
| Trends | Overall it appears that apps realize that it’s necessary to limit likes, which should increase the value of each like. All apps seem to prioritize photos, and some of the “cooler,” “younger” apps seem to be making a move towards videos and increased security. | | | | |
| Positive comment by user | I've been on quite a few dates over just the past month (as a free user), thanks to Tinder - mostly. I used to view it as an app that people used for a quick one night stand, but it seems have evolved into something more | Can't speak for dating. But if you're looking for friends this app is perfect! I travel for work and have trouble meeting people through the traditional way. I've met so many interesting and amazing | This site doesn't waste your time. They chose 6 people a day you might like and that's it. No endless swiping. It might take longer to find someone but the wait definitely | The app is relatively intuitive, and full of folks looking to make connections. Just browsing, I'm getting men and women in my queue, and I realized it's because I was | Pretty good ad. I like the fact that people have to actually send you a message instead of just blindly left or right swiping profiles like on all the other apps. It helps Foster communication. I also like that there always seem to be |

| | Tinder | Bumble | Coffee Meets Bagel | OkCupid | Hinge |
|---|---|---|---|---|---|
| | unique. It's not for everyone, but it's better than nothing. Put forth the effort to get to know somebody and safely hangout and you'll have some success and fun, at the very least. Unfortunately, these apps are the best ways to meet new people nowadays. Might as well start with Tinder. | people using bumble that I would have otherwise never come across! I love it. | discourages fake users. | set to "looking for friends." Pretty neat feature, compared to the more-shallow Tinder and the like. One quibble: the various questions that lead to matches are user-submitted, so you might not have an offered answer that quite matches your views. | a lot of people in my area. Not the type of app if you just want someone to hook up with for sex. I definitely see it as an app for people looking for Meaningful connections or at the bare minimum friends |
| Negative comment by user | Seriously, people, this an *EPIC* garbage app, bar none. You'll put thought into creating a solid profile only for it to be gone, "deleted", whatever you want to call it, a few days later. No explanation given. P00f! Tinder "support" = 😂!!! Incompetent buffoons. They WILL ignore your support tickets. How this flaming pile of douchebaggery is a Google Play "Editor's Pick" is beyond me. The | Seems real, I'm sure women appreciate being in control of who chats first. Haven't 'won' and did spend some cash ($20ish), might be too easy and the women to just be passing through and not care. Is a little fishy all/most women have really well shot photos. Not spending my life on these platforms, not sure if normal. A real study to find out how much are not | It's OK, but this stuff of use a coffee beans, even in a paid subscription, just to like a profile is ridiculous. Besides there is no way to message someone. Didn't like this app and won't recommend it. | “Said I got a message... I clicked the notification right away since I was by my phone just watching a show and there's nothing. So now they don't even let you talk to people, and don't even offer the option to pay for it. This app not only doesn't let you talk to anyone ever period, it's mostly full of girls who have been on for years from the | Was an awesome app loved everything about it. Couple days ago they changed it where you have to pay for likes. Ruined the whole thing really. 10 likes in 24 hours? You gotta be kidding me. This will cause all the busy and worthwile people to leave. Also I get like 2 out if every 3 messages yet they show up in the notification bar and when I open it it's gone. |

| | Tinder | Bumble | Coffee Meets Bagel | OkCupid | Hinge |
|---|---|---|---|---|---|
| | dev doesn't give a rat's butt about any issues you might have. And yes, the issues WILL come up. Can't stress enough: Do NOT waste your time on this junk, guys. You'll regret it 100%. Hope this helps. | real humans would be helpful. | | looks of it. Around a decade is fairly common. No wonder when you can't even talk to your matches. Update: you have to match before talking so sending a message does nothing until you both tinder match. You can't choose to talk to people, you have to just swipe right on everyone. Hello tinder with less people. | |
| Parent Company | Match.com | Bumble Trading Inc. | Coffee Meets Bagel, Inc. | Interactive Corp | Justin McCleod/Match Group |
| Year released | 2012 | 2011 | 2012 | 2004 | 2012 |

# Appendix C

## Visual Masculinity Codebook

| Topic | Code | Definition |
|---|---|---|
| **PROXEMICS** | | |
| | 1 Face | Only the subject's face is visible |
| | 2 Upper Body | Chest and face are visible |
| | 3 Half body | Subject is visible from the waist up |
| | 4 3/4 body | Subject is visible from the hips up |
| | 5 Full body | Fully body or nearly full body is visible |
| **SELFIE** | | |
| | 0 No | This picture is not a selfie |
| | 1 Yes | This picture is a selfie |
| | 97 Indiscernible | It is not possible to tell whether this is a selfie |
| **OPENNESS** | | |
| | 1 Open mouth smile | Subject is smiling and teeth are visible/mouth is open |
| | 2 Closed mouth smile | Subject is smile but teeth are not visible; lips are pressed together |
| | 3 Not smiling | Subject is not smiling; facial expression may be neutral or other |
| **SOCIAL** | | |
| | 1 Face not visible | The face of the subject is not visible |
| | 2 There are 1-2 additional subject | There are at least 1-2 other people in the frame for a total of 2-3 photo subjects |
| | 3 There are 3 or more additional subjects | There are at least 3 other people in the frame for a total of 4 or more photo subjects |

| Topic | Code | Definition |
|---|---|---|
| **SETTING** | | |
| | 1 Indoor | This photo is taken outdoors |
| | 2 Outdoor | This photo is taken indoors |
| | 97 Indiscernible | It is not possible to tell whether this photo is taken indoors or outdoors |
| **CLOTHING** | | |
| | 1 Causal | Photo subject is wearing casual clothes, such as t-shirt, jeans, or workout clothes |
| | 2 Dressy casual | Photo subject is wearing a shirt with a collar, a nice sweater, etc. |
| | 3 Semiformal/formal | Photo subject is wearing a suit or a dress shirt likely with a tie |
| | 4 Work | Photo subject is wearing clothing that indicates his profession |
| | 5 Costume | Photo subject is wearing a costume |
| | 6 Shirtless | The photo subject is not wearing a shirt |
| | 97 Indiscernible | It is not possible to discern what the photo subject is wearing |

## Literature to Support Aforementioned Themes

### Code Definitions

In the following section I provide rationales for the codes I opted to use for the content analysis as they pertain to online impression management and mediated performances of masculinity.

**Proxemics**

Proxemics, or the use of space in non-verbal communication, is one way to communicate power and intimacy in face-to-face and online settings (Kapidzic & Herring, 2014). As such, men may be more likely to use photos that create the impression of much space between the self and the non-self viewer. For example, it was the case that men utilized avatars with more space in Second Life (Yee et al., 2007), and that female teens utilized photos more closely cropped to their face (Kapidzic & Herring, 2007). Both of these digital examples echo interpersonal gender differences offline that women have smaller personal space zones and men larger ones (Evans & Howard, 1973).

**Selfies**

Of the selfie, Frosh (2015) points out that the user is often just an arm's length away from the subject, which changes the usual composition of the photo. He notes, "The producer and referent are identical… 'See me show you me'" (n.p.), although pop culture advice suggests selfies are not the most persuasive type of photo to use for a dating profile. This might be because the process of taking selfies usually allows the photographer (i.e., oneself) to have better control of the final outcome of the photo (Mehdizahed, 2010). On the other hand, this might be because men do not feel comfortable asking other people to take a photo in an opportune moment. A comment that surfaced in this thread was the concession that the poster struggled to put together his Tinder profile because he had so few pictures. Of course, there are gendered implications about this that, in the age of social media, it is permissible for women to take many selfies or group photos, however, it is considered to be unmasculine for men to engage in these photo taking opportunities (barring for certain circumstances such as hikes, rock climbing, or

other sports that demonstrate athleticism or some other type activity). Therefore, the act of the selfie, although it is not the ideal type of photo for a profile photo, may stem from a lack of photo.

**Facial Expression**

Smiling is positively correlated with openness and extraversion (Borkenau et al., 2009), and photos of men tend to be considered attractive when they appear to be extraverted, authentic, and trustworthy (Fiore et al., 2008). Additionally, the intensity of smiles, indicated in this study as an open mouth or closed mouth smile also signals trustworthiness in women (Schmidt, Levenstein, & Ambadar, 2012). It may be the case that smiling increases trustworthiness in male subjects and engenders the impression that he is a suitable long-term romantic partner as well (Okkubo et al., 2015). Of course, this is not true of all cultural backgrounds, but given that most of these people are located in the US, they are likely to be at least aware of and likely negotiating these differences.

**Sociability**

The physical attractiveness of the photo subjects' friends/colleagues contributes to the overall attractiveness and credibility to the main photo subject (Walther et al., 2008). For Asian men in particular, this code is key because they have been perceived to be "left out" (Zhang, 2010).

**Clothing Style**

Another way users' attempt to showcase their diversity is through wearing a different selection of clothing—ranging from formal wear to extremely casual wear. I coded for clothing

style because clothing may be constrained by financial ability, however, unlike the ability to grow facial hair or the possession of a "strong" jawline which are physiological in nature, users still have more agency in selecting the type of clothing they wear for their profile photos. Men may attempt to present a more casual and laid-back self in order to communicate accessibility.

**Sentiment and Productivity Codebook**

| | Code | Definition |
|---|---|---|
| 1 | Productive, Neutral | Reply includes tangible feedback. It is not possible to determine whether there is positive or negative sentimen |
| 2 | Productive, Positive | Reply includes tangible feedback and is generally positive in its sentiment |
| 3 | Productive, Negative | Reply includes tangible feedback and has a generally negative tone |
| 4 | Unproductive, Positive | There is no tangible feedback, but the response contains positive sentiment, such as a compliment |
| 5 | Unproductive Negative | There is no tangible feedback, but the response contains negative sentiment, such as an insult |
| 99 | None of the Above | The reply cannot be categorized into any of the aforementioned categories and is likely to be irrelevant within the context of this study |

**Gender and Race Codebook**

| | | Code |
|---|---|---|
| **Race** | 1 | White |

| | Code | |
|---|---|---|
| | 2 | Asian |
| | 3 | Hispanic |
| | 4 | Black |
| | 5 | Mixed/Ambiguous |
| **Gender** | 0 | Male |
| | 1 | Female |

**Demographics**

| Gender | Percentage [Count] |
|---|---|
| Male | 96% [135] |
| Female | 4% [5] |

Of the 140 Redditors who solicited dating profile help and posted their Tinder profile, only 5 users were women. Gender differences in use and usage rationale may explain why more men seek help on the Tinder Profile Review Week post: Although men and women spend nearly equal amounts of time on dating apps, men are predominantly interested in executing "concrete hooking-up activities" whereas women use mobile dating apps more for self-affirmation (i.e., to increase self-esteem) than for romantic or erotic purposes (Coten et al., 2018, n.p.). In other words, women may only need a high number of matches to feel gratified in using a mobile dating app whereas men's goals are more commonly met when they engage in more interactive actions, such as messaging, meeting up, or sex. The threshold for men to have their needs met are

considerably higher than women. Men are more likely to initiate online exchanges than women--this may reproduce gender inequalities (Sassler & Miller, 2011). Perhaps due to gender differences, women are less likely to initiate messages even if it increases the likelihood that they will match with someone "equally desirable" as themselves. Women send up to 4 times fewer message than men even though female initiate conversations were more likely to result in some type of connection (Kreger et al., 2014).

Conversely, the overwhelming difference between men and women using this service may have something to do more with the toxic geek culture (Kendall, 2008). Asian stereotypes as well as empirical evidence which suggests Asian men may face increased barriers to dating may explain why Asian men are overrepresented on this post: That is data shows Asian men are often perceived to be less desirable than men of other races (Kao, Balisteri, & Joyner, 2018). This may be associated with stereotypes that demasculinize Asian men (Fujino, 1997). Socioeconomic status and occupational prestige do not equate to sexual, or even social acceptance for Asian men; they are still "systematically excluded from having romantic relationships during adolescence" (Hwang, 2012; Kao, Balistreri, & Joyner, 2018, p. 50).

This chart shows that white men, indeed, are the overwhelming majority of the user base, however, Asian men are over-represented at nearly 13%, whereas black men and women are underrepresented at 3.6%. The US is comprised of 5.8% Asians and 13.4% African Americans. Hispanics were particularly difficult to account for as there was a way to differentiate between "white Hispanic" or not.

| | |
|---|---|
| White | 76% |
| Asian | 14% |
| Hispanic | 4% |
| Black | 4% |
| Mixed/Ambiguous | 2% |

## Appendix D

### Script to Download Profile Review Week Thread

```
import praw

username = 'yournamehere'
userAgent = "Research/0.1 by " + username
clientId = 'your_client_id'
clientSecret = "your_client_secret"
r = praw.Reddit(user_agent=userAgent, client_id=clientId,
client_secret=clientSecret)

output = open("tinder_thread.html", "w", encoding="utf-8")
thread = "<div class=\"thread\">"

depth_map = {}

def getSubComments(comment, allComments, depth, verbose=True):
  allComments.append(comment)
  if not hasattr(comment, "replies"):
    replies = comment.comments()
    if verbose:print("fetching (%d comments fetched total) (depth %d)" %
(len(allComments), depth))
  else:
    depth = depth_map[comment.parent_id] + 1
    depth_map[comment.fullname] = depth
    padding = depth * 30
    output.write("<div class=\"chain\" style=\"padding-left:%dpx\">" %
padding)
    replies = comment.replies
    if hasattr(comment, "body_html"):
      author = "unknown"
```

```
      if comment.author is not None: author = comment.author.name
      output.write("<div class=\"author\">%s</div>" % author)
      output.write("<div class=\"comment\">%s</div>" % comment.body_html)
  for child in replies:
    getSubComments(child, allComments, depth, verbose=verbose)
  output.write("</div>")

def getAll(r, submissionId, verbose=True):
  submission = r.submission(submissionId)
  depth_map[submission.fullname] = -1
  comments = submission.comments
  commentsList = []
  for comment in comments:
    getSubComments(comment, commentsList, -1, verbose=verbose)
  return commentsList

res = getAll(r, "andwpf", True)
output.write("</div>")
output.close()
```

# Appendix E

## Mobile Dating App Discussion Guide

### Overview

Goal: To understand how Asian men talk about their experience on mobile dating apps; to understand how Asian men create desirable selves.

### Discussion Guide Outline

| | |
|---|---|
| 1. Intros | 5 minutes |
| 2. Learning about mobile dating apps | 15 minutes |
| 3. Profile creation | 15 minutes |
| 4. Perception of outcomes | 15 minutes |
| **TOTAL** | **45 minutes** |

1. Intros

- Name and brief overview of the study
- The discussion will last no more than **45 minutes**.
- There are no right or wrong answers. We are interested in your experiences, comments and suggestions. **We are here to learn from you**.
- We would like to **record this discussion**. This recording will help us listen to what you have to say and not worry about taking detailed notes. We will transcribe the recording, but the transcriptions will be confidential and will only be used for our analysis.
- Everything will be kept **confidential** – we will have a summary of our discussions for the purpose of the research project. Is that ok.

Let's dive in. Tell me a little bit about yourself:

- Let's get started by learning some more about you. Perhaps you could tell us your first name, and how you spend your time during most days...
- What are your hobbies & interests?
- How do you choose to spend free time or treat yourself?

- What kind of phone do you have? What social media apps do you like to use?

- How about your dating life? What is your current dating status, what are you looking for, are you already seeing someone, in a relationship, breaking up, etc.

Dating Apps

- which dating apps do you currently use?
    - How do you decide on using one app over the other? When do you use each of these apps?
- Of the apps you just listed, which do you use the most frequently? Why is that?
    - [PROBE: How often do you use this app? When do you use this app? What features do you particularly like about this app? Which features do you utilize the most? What features don't you like about this app? What features would you be interested in seeing? Why?]
    - What do you think of the preference settings (i.e., the settings that determine who you see)? Do your preferences match the types of people you see?
    - Do users on this app need to mutually match with each other before messaging? [IF YES, PROCEED TO NEXT QUESTION. IF NO, SKIP TO "how do you decide to message a person"]
    - How many matches do you get a day [or whatever unit]?
        - What do you think of this process of matching?
        - What do you think of that number (of matches)?
        - How often do those matches result in messages?
    - [After matching,] how do you decide to message a person? How often do you message first? How often do others initiate the conversation (i.e., send the first message)? How often do you respond to messages others send to you?

    - Would you mind sharing with us a successful dating story you have by using that dating app? This story can be about matching, messaging, or meeting up.

- Go ahead and walk me through how you normally use this app. Which features does the app have? Tell me what you think about these features.
    - PROBES: What do you like or dislike? Is there anything that's hard to use?

- What are your goals when you use Tinder? What are you hoping to accomplish? [PROVIDE EXAMPLES AS NEEDED: Talking to other people? Getting positive feedback from other users?] Do you usually accomplish these goals?

- Go ahead and walk me through your Tinder Profile

- Do you factor in race/ gender when you are using Tinder? Do you think that race/gender impact your goal outcomes?

# Appendix F

## Gamification Discussion Guide

### Overview

- Goal: To understand experts talk about gamified dating
- Outcome: To give insight to more ethical design

Discussion Guide Outline

| | |
|---|---|
| 1. Intros | 5 minutes |
| 2. Learning about mobile dating apps (critique) | 25 minutes |
| 3. Thinking through new solutions | 25 minutes |
| 4. Conclusion | 5 minutes |
| **TOTAL** | **60 minutes** |

1. Intros

- Name and brief overview of the study
- The discussion will last no more than **60 minutes**.
- There are no right or wrong answers. We are interested in your experiences, comments and suggestions. **I am here to learn from you**.
- I would like to **record this discussion**. This recording will help me listen to what you have to say and not worry about taking detailed notes. I will transcribe the recording, but the transcriptions will be confidential and will only be used for my analysis.
- Everything will be kept **confidential** – we will have a summary of our discussions for the purpose of the research project. Is that ok.

2. Let's dive in. Tell me a little bit about yourself:

- Let's get started by learning some more about you. Perhaps you could tell us your first name, and how you spend your time during most days...
- What are your hobbies & interests?
- How do you choose to spend free time or treat yourself?
- What kind of phone do you have? What social media apps do you like to use?
- How about your dating life? What is your current dating status, what are you looking for, are you already seeing someone, in a relationship, breaking up, etc.

- **Gamification**:
  What is the purpose of gamifying an app?
  Do you see any gamification strategies on any of the dating apps you use?

What is the goal of the game?
What game playing elements do you see in Tinder?
What do players get for engaging in this game?
What does it cost them? What does the company get?
What are the benefits of gamification? Consequences?
Why have we made a move towards gamification?
What about the design here encourages gamified attitudes?
What does it mean to gamify dating?
What design values do you see?

- **Neoliberal ideologies:**
  Do you think it's practical to create a product that inhibits automaticity? What would this cost?
  Would people be interested in this product?
  If we change nothing about the design of tinder, who benefits the most?
  Who does this most negatively impact?

- **Race and Gender:**
  Do you think race and gender impact the outcome of the "game"?
  Do you personally think about race when you design game/apps?
  Does your identity as an Asian male impact your design/game practices?

- **Other**: What are other things you think researchers should be asking about gamification?