How Public Is My Private Life? Privacy in Online Dating

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University of Washington

Outline

- Background and Motivation
- Study Design
- Results
- Takeaways

Online Dating

online services that facilitate romantic connections

- Create a profile
- View others' profiles
- Filter for important characteristics
- Exchange messages

Privacy Issues in Online Dating

how online dating users' expectations of privacy may be violated

- Leaks due to technical vulnerabilities
- Online dating companies selling users' data

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- Screenshots of Rio Olympians' profiles published online

OLYMPICS · Aug 10, 2016 4:59 pm
Tinder Profiles For Olympic Athletes In Rio
Joe Kinsey
SHARE

teenVOGUE · SUBSCRIBE · FASHION · ENTERTAINMENT · BEAUTY · MY LIFE · WELLNESS · 21 UNDER 21 · Like 5.9M

SEXUAL HEALTH + IDENTITY
Olympics 2016: Closeted Gay Athletes Outed by Daily Beast Grindr Article
Find out why it is so dangerous to out closeted gay athletes who are using the Grindr app at the Rio Olympics.
Brittney McNamara
AUG 12, 2016 12:32PM EDT

Privacy Issues in Online Dating

how online dating users' expectations of privacy may be violated by other users

- ~~Leaks due to technical vulnerabilities~~
- ~~Online dating companies selling users' data~~
- Screenshots of Rio Olympians' profiles published online
- Personal experiences, news articles, blog posts, etc.

OLYMPICS   Aug 10, 2016 4:59 pm

Tinder Profiles For Olympic Athletes In Rio

Joe Kinsey

SHARE

teenVOGUE   SUBSCRIBE   FASHION   ENTERTAINMENT   BEAUTY   MY LIFE   WELLNESS   21 UNDER 21   Like 5.9M

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Olympics 2016: Closeted Gay Athletes Outed by Daily Beast Grindr Article

Find out why it is so dangerous to out closeted gay athletes who are using the Grindr app at the Rio Olympics.

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Privacy

how online da... ...d by other users

- ~~Leaks...~~
- ~~Online...~~

Related Work

- How people present themselves in online dating [MMG2012, HTE2007]
  - Privacy has come up, but wasn't the focus [GEL2010]
  - Many focus on specific communities, like Grindr [BBA2014]
- Privacy in related contexts
  - Other online services: Facebook [AG2006, JEB2012], Twitter [MTKC2010], and Snapchat [RGK2014]
  - Context has a significant impact what and how much people disclose [BHA+2013, JAL2011]
  - Location privacy preferences [TL2013]
- See paper for additional related works

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Study goals

- Understand goals, expectations, strategies for managing privacy
- Understand how people interact with other users' potentially private information
- Surface privacy challenges in online dating

Methods *

- Surveys
  - 97 participants (recruited via social media and snowball sampling)
  - 35 men, 61 women, 1 unspecified
  - 62 under 30 years old; 35 over 30 years old
  - 83 straight; 6 bisexual; 4 gay or lesbian; 4 unspecified
- Follow-up Interviews
  - 14 participants
  - 7 men, 7 women
- Tinder profile analysis
  - 400 profiles in Seattle and Atlanta
  - 100 men seeking women, 100 women seeking men in each city

* All approved by our university's IRB

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Survey
Interview
Tinder Profile Analysis

Alice meets Barbra on tinder™ *

(Cooper)   (Streisand)

* Fictitious example. Tinder screenshots Photoshopped to include celebrities' images found online

Account Setup   "Discovery"   Matching, Messaging, Etc.

Downloading Tinder
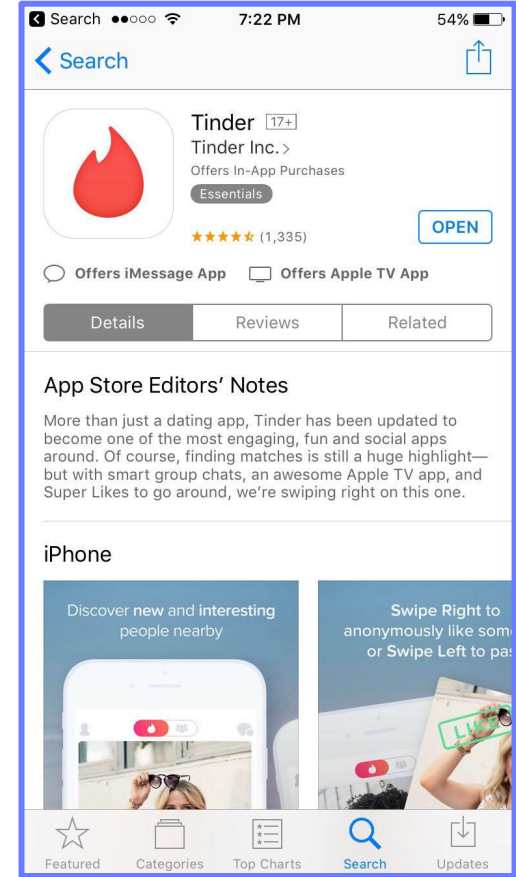
Account Setup   "Discovery"   Messaging, etc.

Discover new and interesting people nearby
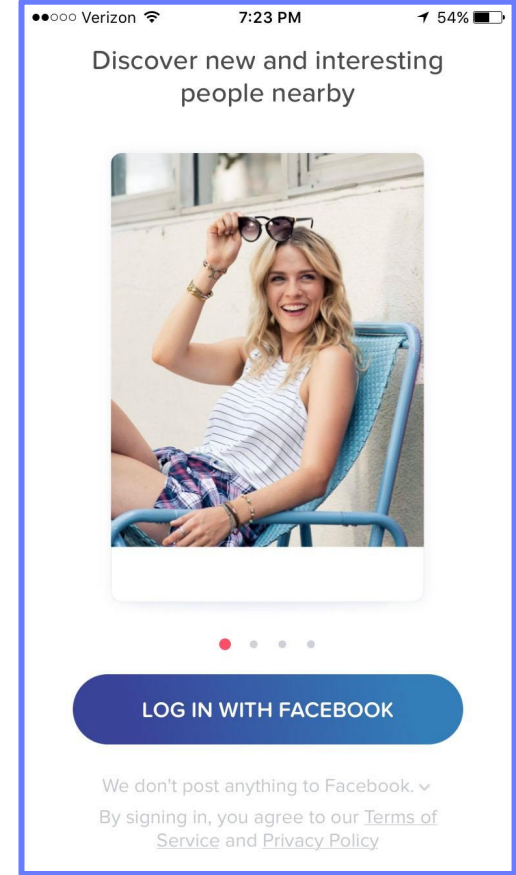
If Alice wants to use Tinder, he must have a Facebook account.

LOG IN WITH FACEBOOK

We don't post anything to Facebook. ⌄

By signing in, you agree to our Terms of Service and Privacy Policy

Account Setup   "Discovery"   Matching, Messaging, Etc.

Granting Permissions to Facebook
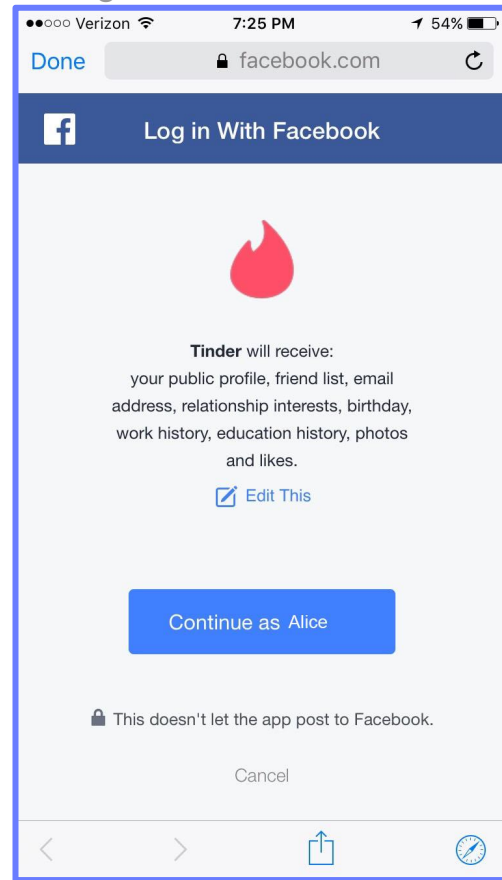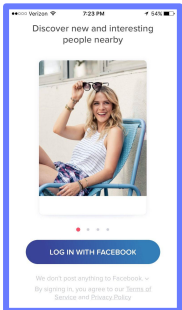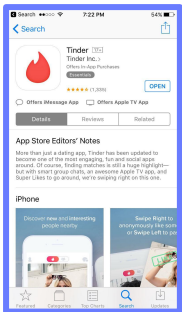
Account Setup   "Discovery"   Matching, Messaging, Etc.

Curating Profile

●●○○○ Verizon 📶 7:25 PM ◢ 54% ▮

Edit Info **Done**

About Alice

Godfather of shock rock. School's out for summer! Swipe right :)

416

Current Work

Lead Singer at Alice Cooper

School
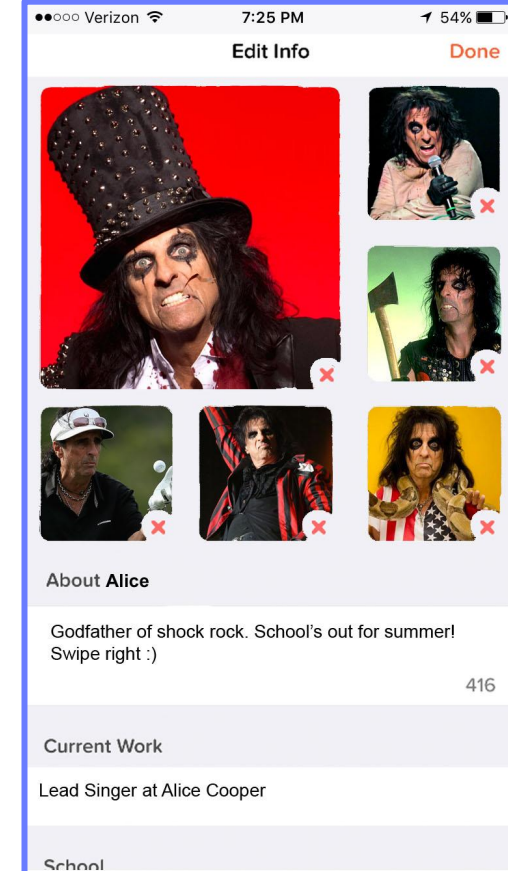
How does Alice choose what information to include or leave out of his profile?
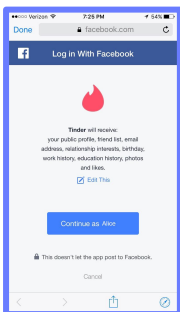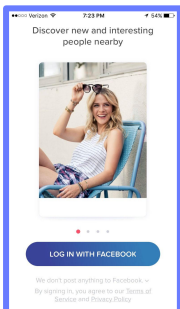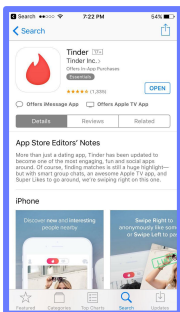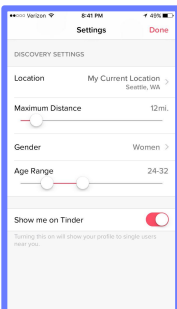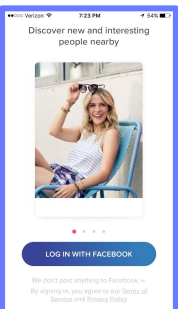
Account Setup   "Discovery"   Matching, Messaging, Etc.

Goals:
- **Filter** for compatible matches
- **Increase chances** for a match
- **Reciprocate** when others share information
- Convey **values**, **hobbies**, **sense of humor**, **personality**

[Survey + Interviews]

Content in Profiles
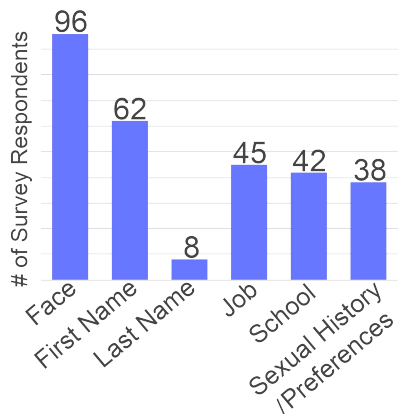
"If they don't have anything, I kind of skip over them because clearly they didn't put any effort into it." [Interview]

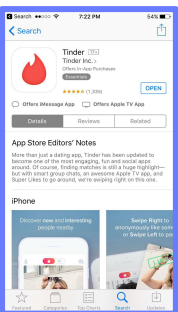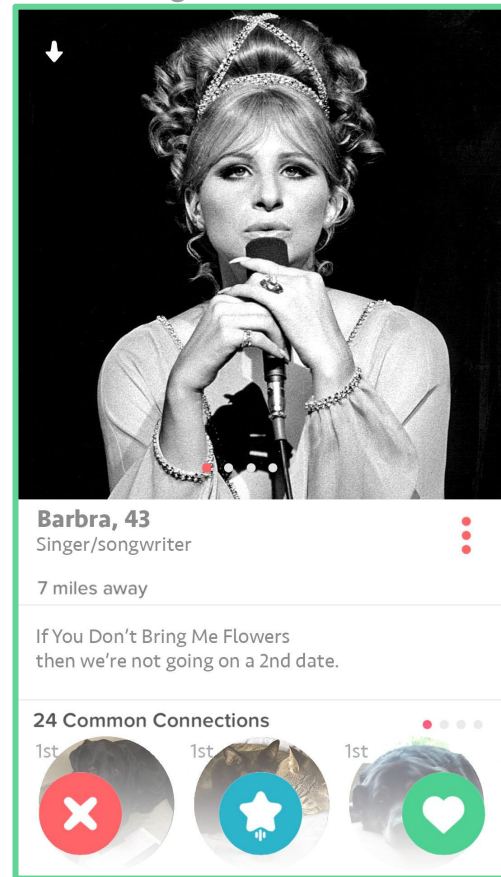Added educational history to her profile after being accused of being a bot. [Interview]
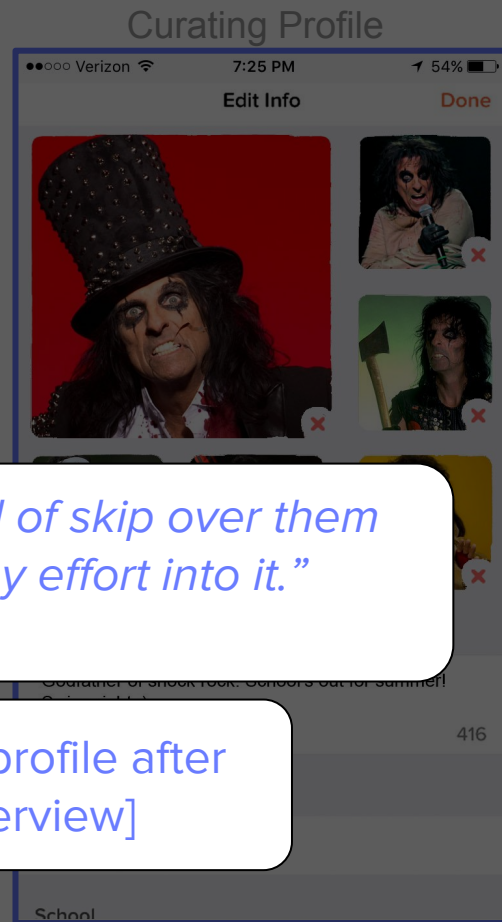
Account Setup   "Discovery"   Matching, Messaging, Etc.
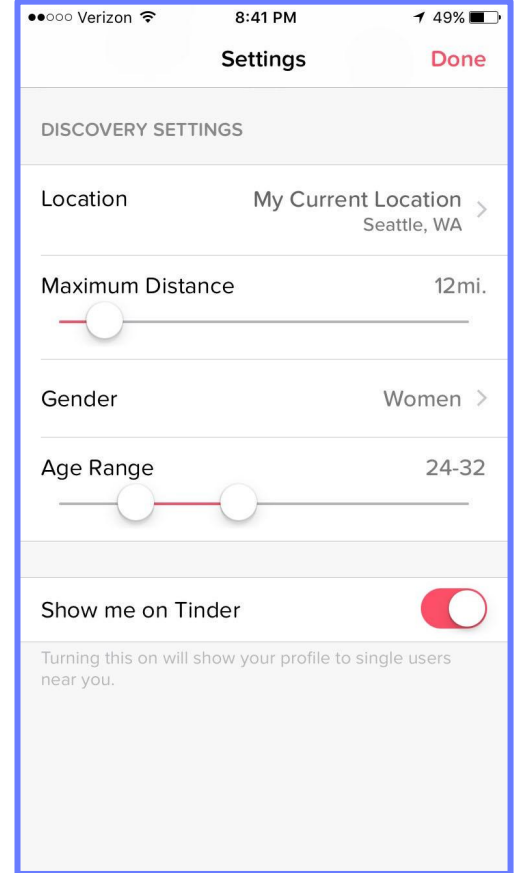
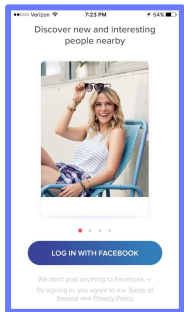*Who will Alice see, and who will see Alice?*

DISCOVERY SETTINGS

Location — My Current Location, Seattle, WA

Maximum Distance — 12mi.

Gender — Women

Age Range — 24-32

Show me on Tinder

Turning this on will show your profile to single users near you.
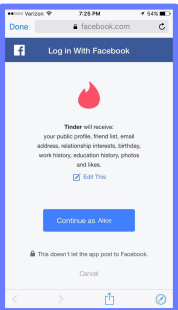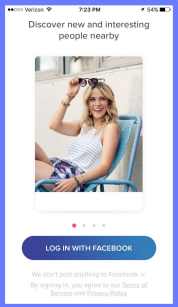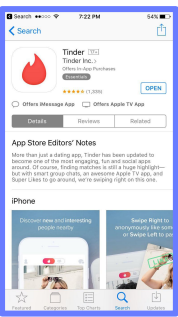
Account Setup   "Discovery"   Matching, Messaging, Etc.

Anticipating and **controlling** a profile's **audience** is difficult.

"I feel very uncomfortable when I see my coworkers' profiles, so I make sure to not use proximity-driven apps at work." [Survey]

33 saw a coworker's profile
48 recognized someone in public or met them coincidentally
81 saw someone they knew offline [Survey]

"I spent a whole day . . . to find as many [people who work nearby] as I could and block them . . . I missed somebody, inevitably." [Interview]

"overy" Settings

3:41 PM   49%

ettings   Done

Location   My Current Location
                              Seattle, WA

                                      12mi.

                              Women

Age Range   24-32

Show me on Tinder

Turning this on will show your profile to single users near you.

Account Setup   "Discovery"   Matching, Messaging, Etc.

Viewing First Profile in Queue

Malory, 42
Mom and Secret Agent

Account Setup   "Discovery"   Matching, Messaging, Etc.

"Swiping Left"
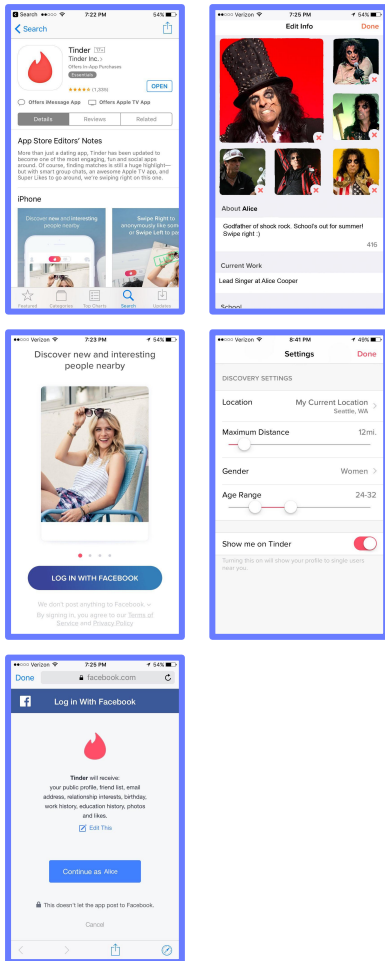
Malory won't know that Alice has swiped left and Alice will never know whether Malory swipes left or right.

Account Setup   "Discovery"   Matching, Messaging, Etc.
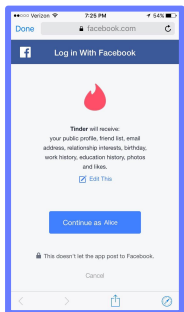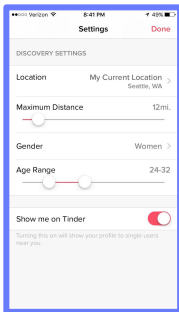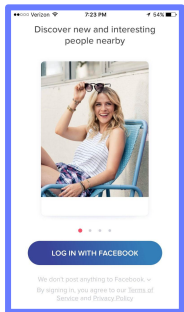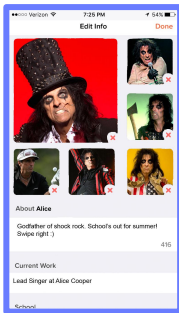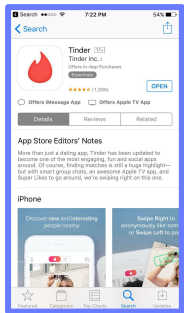
Viewing Next Profile in Queue
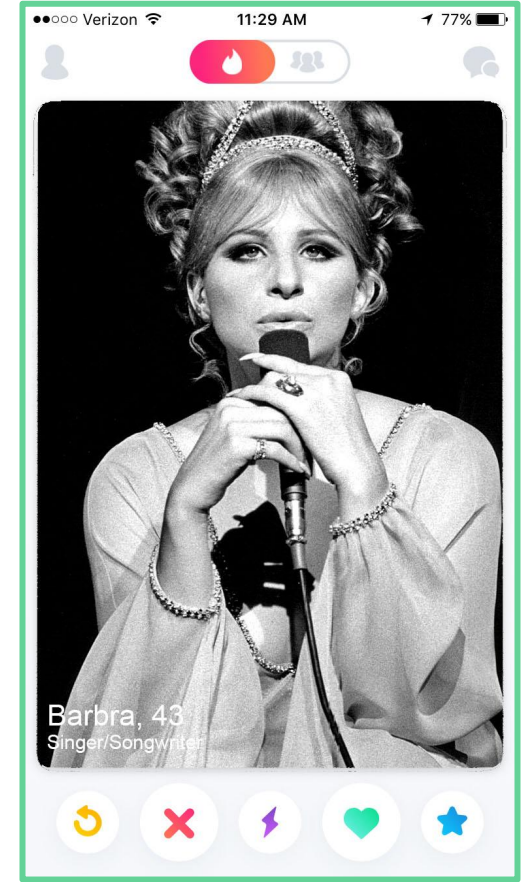
Account Setup   "Discovery"   Matching, Messaging, Etc.

Viewing Detailed Profile

Barbra, 43
Singer/songwriter

7 miles away

If You Don't Bring Me Flowers
then we're not going on a 2nd date.

24 Common Connections

1st   1st   1st

Account Setup   "Discovery"   Matching, Messaging, Etc.

Viewing Detailed Profile

24 Common Connections

1st Mick Jagger
1st Blondie
1st Alanis Mori..

1st Jimmy Hendrix
2nd David Bowie
2nd Bob Dylan
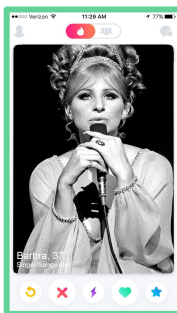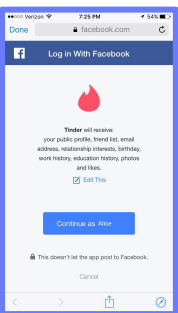
70 Instagram Photos
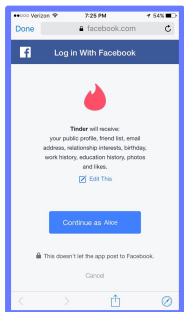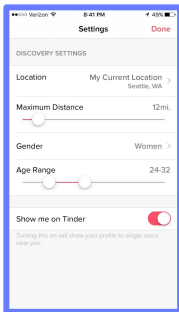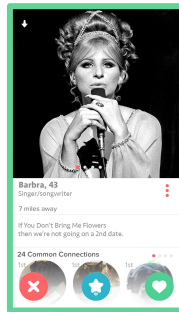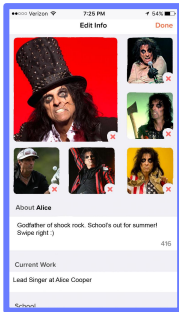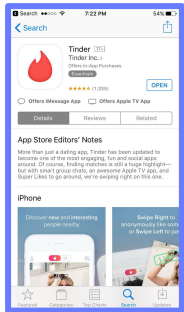
Barbra's Instagram username is displayed if Alice taps a photo.
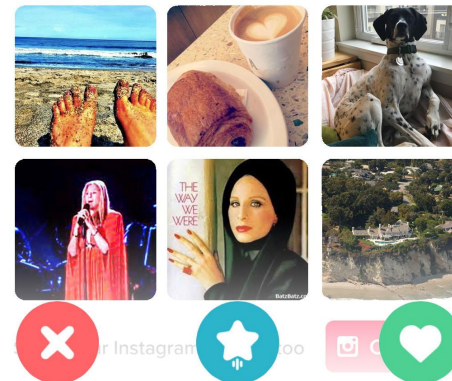
Account Setup

"Discovery"

Matching, Messaging, Etc.

72 think it is **common** to look people up
4 did not look people up because it's an **invasion of privacy**
[Survey]

*"Based off of what my friends do, I kind of expect people to **really go in and try to figure things out**. They're kind of **like spies**"* [Interview]

*"I try not to do anything like that unless I'm planning to meet someone, and even then I'm probably **restricting myself to google**"* [Survey]

Viewing Detailed Profile

Common Connections

Mick Jagger   Blondie   Alanis Mori..

Users with **linked Instagram** are **more findable**

Education, **employment**, and having (or using) a **unique name** increases findability

[Tinder Profile Analysis]

Account Setup   "Discovery"   Matching, Messaging, Etc.

"Swiping Right"
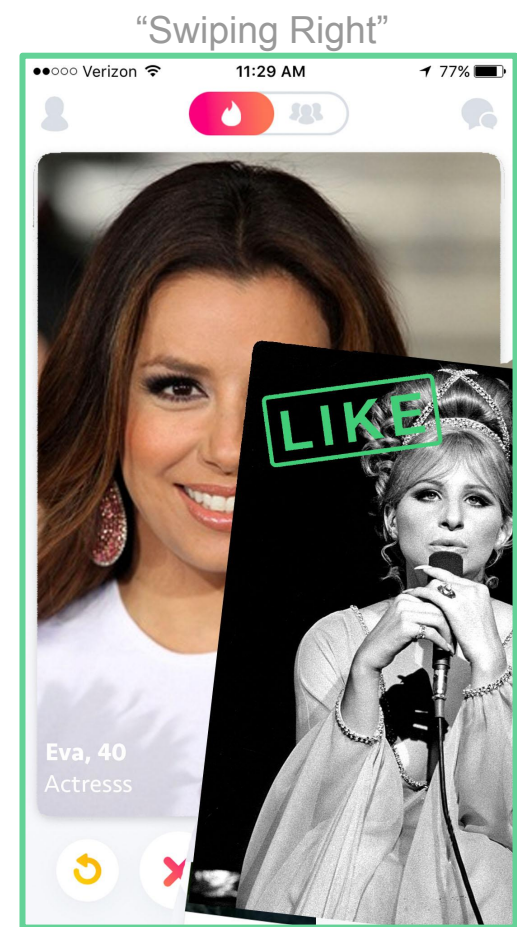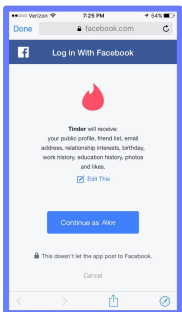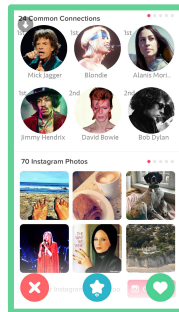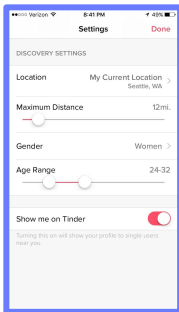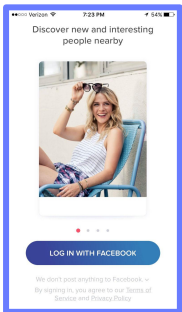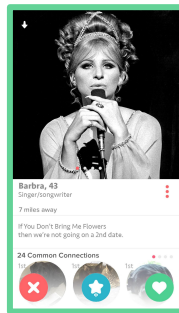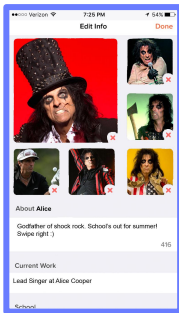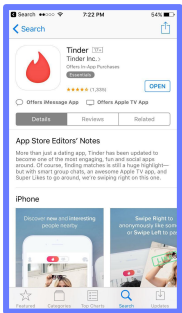
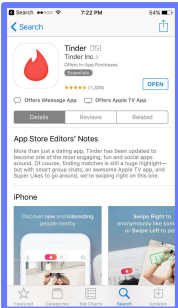Account Setup   "Discovery"   Matching, Messaging, Etc.

Match!

It's a Match!

You and Barbra have liked each other.
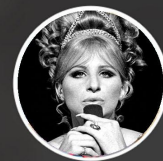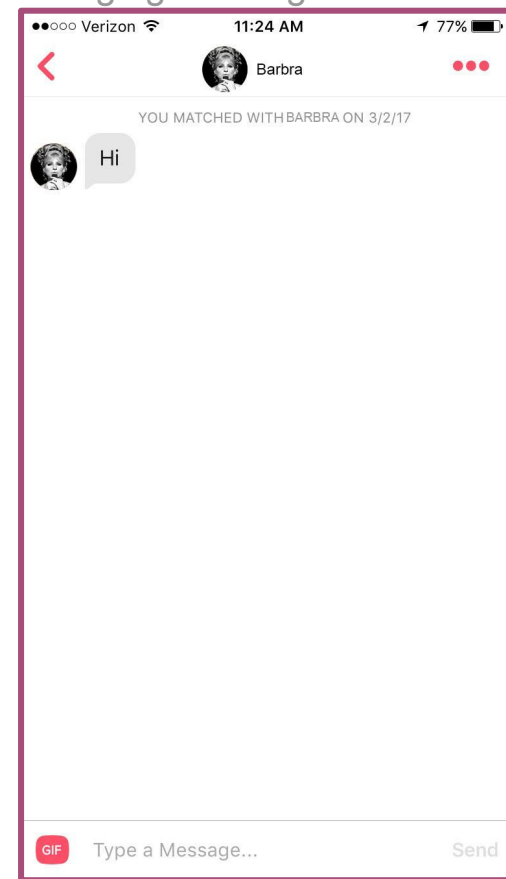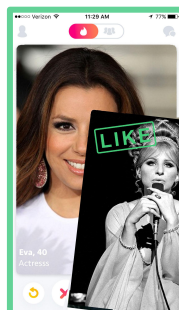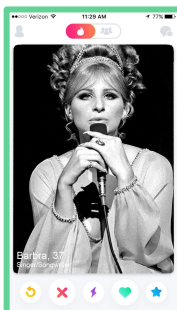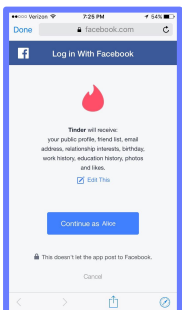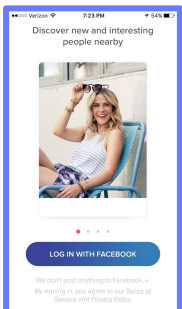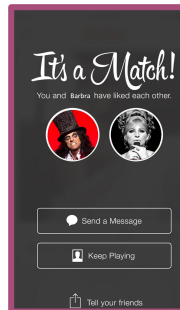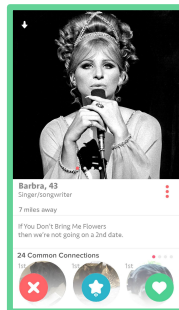
Send a Message

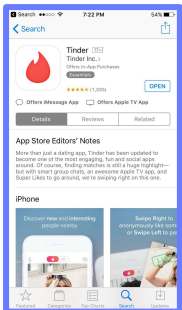Keep Playing

Tell your friends
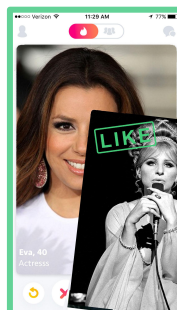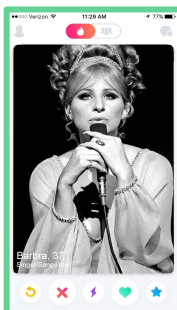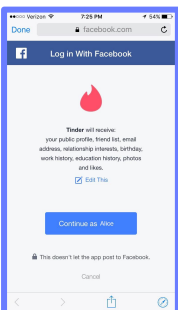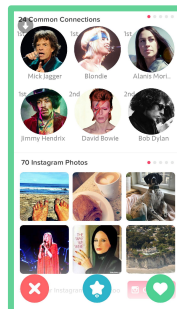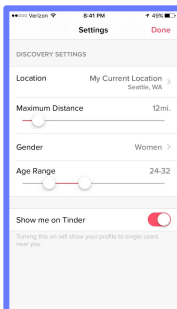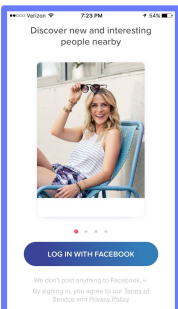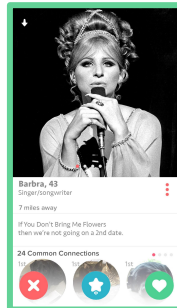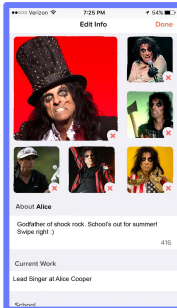
Account Setup   "Discovery"   Matching, Messaging, Etc.
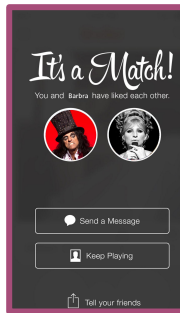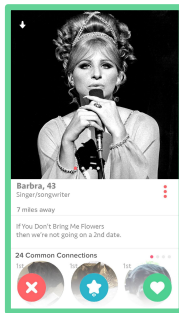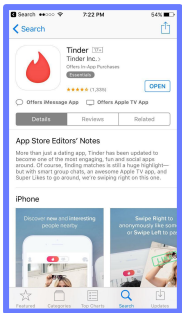
Exchanging Messages on Tinder
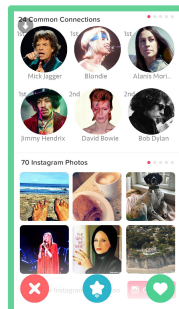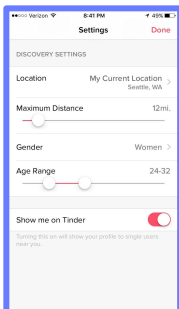
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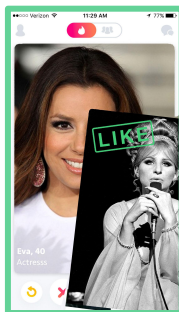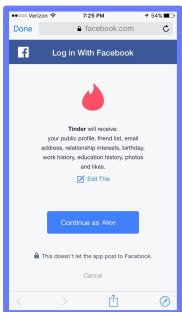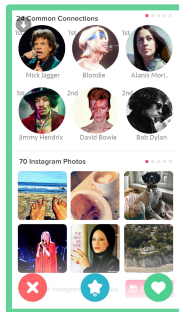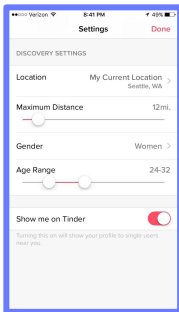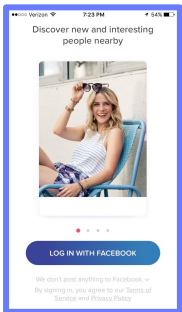
Setting up dates

Exchanging phone numbers

Connecting on other social media

Meeting friends/family

. . .

Account Setup   "Discovery"   Matching, Messaging, Etc.

Outline

- Background and Motivation
- Study Design
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- Takeaways

Summary

Privacy issues arise when …
- Choosing profile content
- Determining audience
- Looking people up

More in the paper!
- Perceived and experienced risks
  - Users' Threat Models
- Disclosure
- Searchability
- Taking and sharing screenshots
- Suggestions for design

★ Privacy in this space is complicated
★ Mismatches in expectations
★ Tradeoffs between privacy and other user goals
★ Interactions with non-dating apps can unexpectedly leak information
★ No one-size-fits-all solution

Thank you!

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