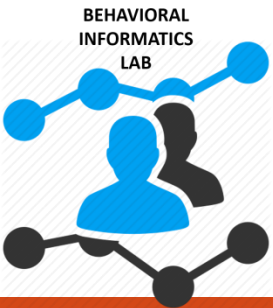RUTGERS
School of Communication and Information

@ishaghosh
Isha Ghosh
isha.ghosh@rutgers.edu

Privacy and Technology
October 22, 2019

BEHAVIORAL INFORMATICS LAB

Isha Ghosh
Rutgers University

"Any sound that Winston made, above the level of a very low whisper, would be picked up by it; moreover, so long as he remained within the field of vision which the metal plaque commanded, he could be seen as well as heard.

There was of course no way of knowing whether you were being watched at any given moment. How often, [...] plugged in on any individual wire was guesswork. It was even conceivable that they watched everybody all the time. But at any rate they could plug in your wire whenever they wanted to. "

Introduction

Use of *social systems* to:

Understand Privacy and Security Attitudes and Behavior

- Smart Devices
- Reliable and Valid Scales

Motivate change to better help manage privacy and security

- Interventions based on:
  - Increasing Awareness
  - Social Networks
  - Demonstrated behaviors

Social Systems

Understand Privacy Attitudes and Behavior - Challenges

➢ Large volumes of data transmitted through smart devices.

➢ Different levels of concern over different types of data.

➢ Varying levels of awareness about data sharing practices

Understand Privacy Attitudes and Behavior - Challenges

➤ Attitudes towards privacy and security change over time.

➤ No "gold standard" for "good" practices.

➤ Complicated and changing settings

➤ Trade-off between maintaining privacy and building/leveraging networks

Challenges

How do we increase an awareness of data-sharing and disclosure practices?

How can we use social-systems to improve information sharing in digital contexts?

Smart Devices as Sensors

➤ "Always-on".

➤ Used to perform a range of activities.

➤ Used over long periods of time

➤ Can change and adapt to different data sharing practices

Current Projects

Fixing the gap between attitudes and behaviors.

Testing different social interventions to increase awareness of information sharing and disclosure.

Intervention Design

- Interventions or "nudges" are help people better:

  - Manage security and privacy

  - Achieve health and well-being goals

  - Increase awareness etc.

In what way can audience-based nudges be used to improve location-based disclosure in social networks?

Intervention Design

❑ Surveys and a short interview to understand their location check in habits, privacy preferences, and demographic details.

❑ Different audience-based nudges over seven days.

❑ After session with surveys and interviews.

Intervention Design

Do you recognize these people?

Friend 1 Name
Friend 2 Name
Friend 3 Name

Okay　　**Cancel**

They have access to all your friends' only information, including the locations you check into.

Do you recognize these people?

Friend 1 Name
Friend 2 Name
Friend 3 Name

Okay　　**Cancel**

They have access to all your friends' only information, including the locations you check into.

Do you know everyone in your friends list?
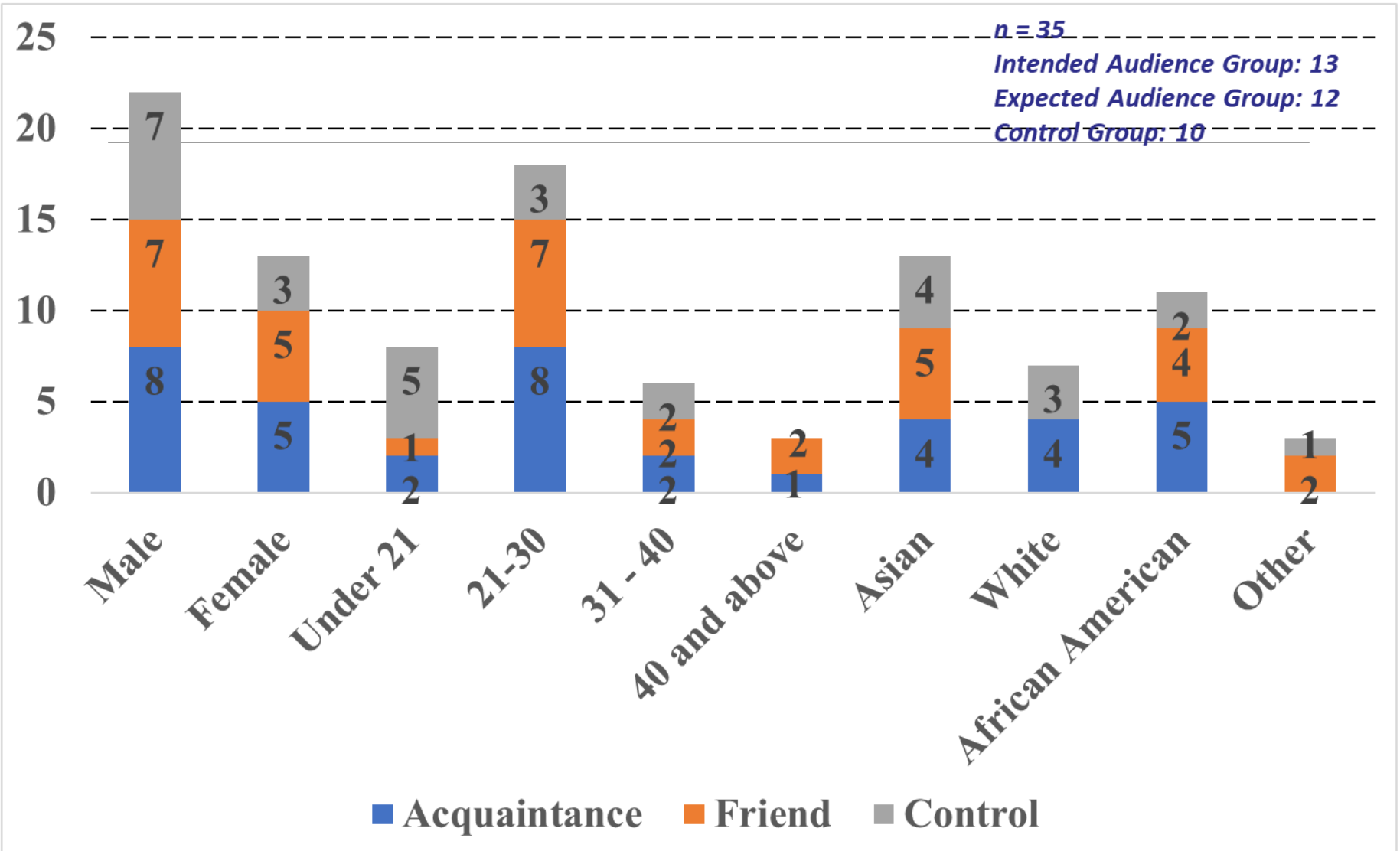
Profile Name
Profile Name
Profile Name

Okay　　**Cancel**

Do you know that everyone in your friends list has access to all your check-ns by default

Intervention Design

Intervention Design

	Permitted Audience (n=13)		Perceived Audience (n=12)		Control Condition (n=10)	
	Before	After	Before	After	Before	After
Total Number of Check-ins	83	44	89	71	65	70
Changes to visibility settings on posts	0	5	0	2	0	0
Lives In section empty or restricted	1	10	2	8	1	2
Total Number of Friends	16909	16173	13269	13210	10631	10524

Intervention Design

"I use to pretty much add every person that sent me a request, but I've made my settings much tougher now. My profile is no longer searchable by location or school

I no longer allow myself to be tagged by default. I get a notification when someone tags me and the post only shows my name after approval

"...if a 1000 people see me forward or repost or like something...that's okay, but when they see where I go clubbing...that's like much weirder

Most of my check-ins are at the gym.... it's my way of staying on track with my New Year resolution but seeing random people that could know where I was everyday at a particular time really creeped me out. That was something I stopped doing. I just put a check mark on my calendar now

Next Steps

➢ Motivate users to adopt effective privacy practices

➢ Design for inclusive privacy

➢ Identify bias in AI

Questions

Isha Ghosh,
Doctoral Candidate (ABD)
Rutgers University
isha.ghosh@rutgers.edu