

The Susceptibility of Disclosing Private Security Information in College Students



Rachel Bleiman, Aunshul Rege, Temple University

Research Goal

The goal of this research is to analyze how social engineering (SE) can be used to manipulate college students into disclosing sensitive information

Research Objectives

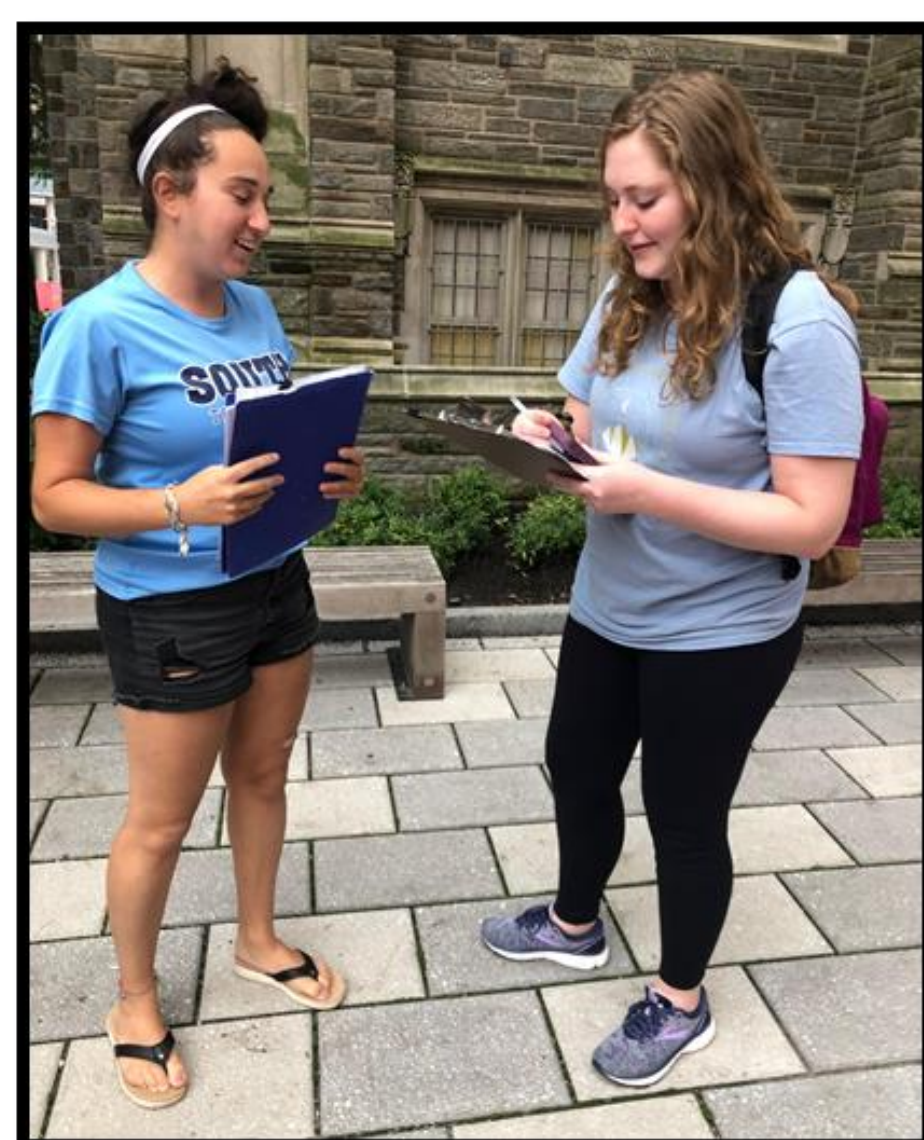
1. Identify the pretexts (false motives people use to obtain information) that make college students susceptible to disclosing their private information.
2. Identify the type of private information college students are more susceptible to disclosing
3. Examine college students' awareness regarding disclosure of private information, both online and offline.

SE Attack Styles

- Pretexting
- Phishing
- Vishing

Principles of Persuasion

- Natural Inclination to Help
- Reciprocity
- Likeness
- Authority
- Social Proof
- Scarcity
- Commitment and Consistency



Methodology

- In-person survey: contact information and common security questions
- Four pretexts
 1. Student Helping Student (N=17)
 2. Raffle (N=7)
 3. Student Helping Niece (N=11)
 4. Therapy Dog (N=16)
- Post-disclosure interviews
- Duration: Four weeks
- N=51

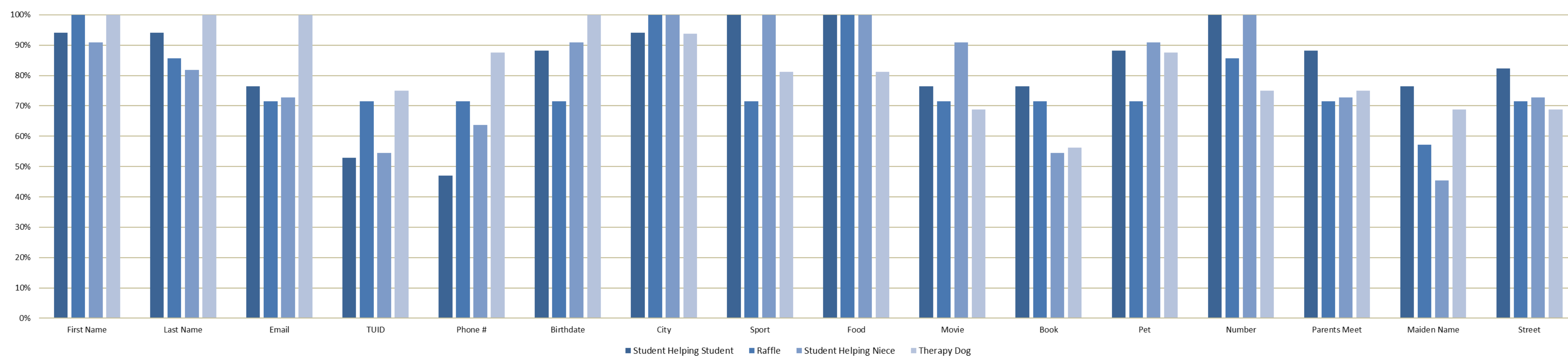


Figure 2: Questions Response Rates per Pretext

Pretext-Based Findings

Consistent number of questions answered (out of 16) for all four pretexts (mdn=14)

Post-Disclosure Findings

Success of a SE attack depends on gaining victim's trust:

- Adherence to character role
- Likeness factor



Name: _____ Email Address: tu _____@temple.edu
 TUID: 915 _____ Phone Number: (____) - ____ - _____

Are you 18 years or older? (check one): Yes ___ No ___
 Birthdate: ____/____/____

Tell us about yourself!

1. What city are you from? _____
2. What is your favorite sports team? _____
3. What is your favorite food? _____
4. What is your favorite movie? _____
5. What is your favorite book? _____
6. What is the name of your favorite pet? _____
7. What is your favorite number? _____
8. In what city did your parents meet? _____
9. What is your mother's maiden name? _____
10. What is the name of the street you grew up on? _____

Figure 1: Survey Questions

Societal Impact and Importance

- Student awareness of security information disclosure online and offline
- College students are next generation work force

