CS 563 - Advanced Computer Security: Topic Area Discussion, Administrative Stuff

Professor Adam Bates
Fall 2018
• Which topic areas were the most popular?
  • *How should I define popular?*
  • *How should I define topic area?*
• Tried a couple of different strategies
Weighted Preferences

Preference #1 = +1.0 points
Preference #2 = +0.5 points
Drop Pref 2 if duplicate

1) Human Factors
2) System Intrusions
3) Measurement
• Ranked choice algorithms can handle partially complete ballots (i.e., 2 votes not 6). Neat!

• Round #1 winner: Human Factors
  • Remove ballots that ranked Human Factors…

• Round #2 winner: System Intrusions
  • Remove ballots that ranked System Intrusions…

• Round #3 winner: Security Measurement, but Mobile much closer

• Number of students that didn’t rank either of these topics… one (Sorry Umar!)
Validation Step

• Re-sort projects not on self-reported topic area but by expert interpretation of described topic area

• Finding: People weren’t actually pitching measurement studies in the measurement area

New rankings:
1) System Intrusions
2) Human Factors
3) Mobile & Device
4) Web
“Ranked Choice” Voting

• Rerun ranked choice
• Round #1 winner: System Intrusions
  • Remove ballots that ranked System Intrusions…
• Round #2 winner: Human Factors
  • Remove ballots that ranked Human Factors…
• Round #3 winner: Mobile & Device Security
• Number of students that didn’t rank either of these topics… two, both of which were (arguably) in web
Final Topic Areas

1. Human Factors
2. System Intrusions
3. Device & Web Security (spans Mobile Sec + Web Priv)

Everyone pitched a project that fell into these categories.
Next week

• Needed some victims for first presentations…

• Victim Selection Criteria
  • Preference proposals were salient
  • Your reference included an interesting paper selection unlike those we've already read
  • I thought you could handle the short notice
October 3rd

• October 3rd

  • Presenter #1: Mohammad Noureddine (Sys Intru)
    • “RAIN: Refinable attack investigation with on-demand inter-process information flow tracking” (CCS’17)

  • Presenter #2: Joshua Reynolds (Human Factors)
    • “Rethinking Connection Security Indicators” (SOUPS’16)
• October 5th

  • Presenter #1: Kevin Liao (Human Factors)
    • “Stack Overflow Considered Harmful? the impact of copy&paste on android application security.” (Oakland’17)

  • Presenter #2: Yasha Mostofi (Mobile & Web)
    • “Won't Somebody Think of the Children?” Examining COPPA Compliance at Scale (PETS’18)
Responsibilities of the Presenter:

- Create a ~25 minute presentation on the topic
  - Objective is to generate **discussion**!
  - Assigned paper = jumping off point for the general topic
  - Be prepared to adapt if discussion is lively!
- Your total time slot is ~40 minutes
- Borrowing from conference slide decks is OK, but you will need to do more... the goals of your talk are different.
- Email slides to me at least one day before class for approval.
Paper Presentations

Generic Presentation Advice:

• Requires the technical preparation necessary for writing a summary, but also much more!

• Audience engagement is vital
  • Construct a narrative
  • Engage the audience
  • Identify an insight
  • Argue a point
  • Extend an argument

• Relate what you’ve learned, and what strikes you about the work: be engaged with the content
Paper Presentations

Generic Presentation Advice:

• Keep your points simple and repeat key insights
• Know the jargon that you will be using
• Present a narrative - tell a story
• Pace the talk so that you’re not rushing or dragging
• Think about the goals of your presentation
  • Leave audience with the high points in their head
• Practice and prepare!
• Read http://pages.cs.wisc.edu/~markhill/conference-talk.html
Does my term project need to be in one of these areas?

¯\_(_(ツ)_/¯
• Coming today/tomorrow
• No one is obligated to work on the project(s) they initially proposed
• We might suggest related ideas that we think you would be interested in.
• Human Factors research requires human subjects… right?
• IRB presents a challenge
• Design study stimuli and analysis plan, synthesize data yourself, analyze the synthetic data.
• If project is promising, we could potentially submit a protocol at the end of the semester…
Hanging out for project/presentation questions now