

## Motivation and goals

Awareness about security and privacy risks is important for developing good security habits. Learning about real-world security incidents and data breaches can alert people to the ways in which their information is vulnerable online, thus playing a significant role in encouraging safe security behavior.

By quantitatively examining real-world internet-browsing data from 303 participants, we examine:

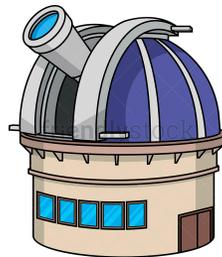
1. How often do people read about security incidents online?
2. What influences the likelihood that people will read about an incident and take some action?

## Security Behavior Observatory

Longitudinal data about 303 participants collected from people's home computers

Data used:

- Browsing history
- Passwords history



## Six security incidents

- Equifax breach
- Yahoo! breach
- Uber hack
- Ashley Madison breach
- Panama Papers
- WannaCry



## How often do people read about incidents?

### Methodology:

- Analyzed browsing histories for webpages about each of the six incidents
- Analyzed features about each participant in relation to likelihood of reading about an incident:
  - Demographics
  - SeBIS intentions
  - Browsing behavior: amount of technical browsing, topics of browsing

### Results:

- Only 16% of participants read about any security incident
- More technology-related browsing was correlated with coming across incident information
- Older and more proactive people were likely to read about an incident

## What influences the likelihood of taking action?

### Methodology:

- Create browsing trajectories from browsing history surrounding reading about an incident
  - 20 visits preceding first incident page visit
  - First occurrence of incident-related page
  - Subsequent visits to pages about incident
- Manually examine trajectories and extract features related to reading:
  - Demographics and SeBIS intentions
  - Browsing behavior
  - Trajectory-related features
  - Incident-related features
- Extract actions after the first webpage related to the incident

### Results:

- More actions were correlated with higher sensitivity of the data compromised
- More actions were correlated with positive sentiment on the page

