

# Cogs 10 Final Project: Analyzing Breakdowns

**Zuckerberg's a Robot: Confirmed**

Aimee Lee

Emily Pettitt

Louis Morales

Mia Schloss

Rashad Anderson

# Overview

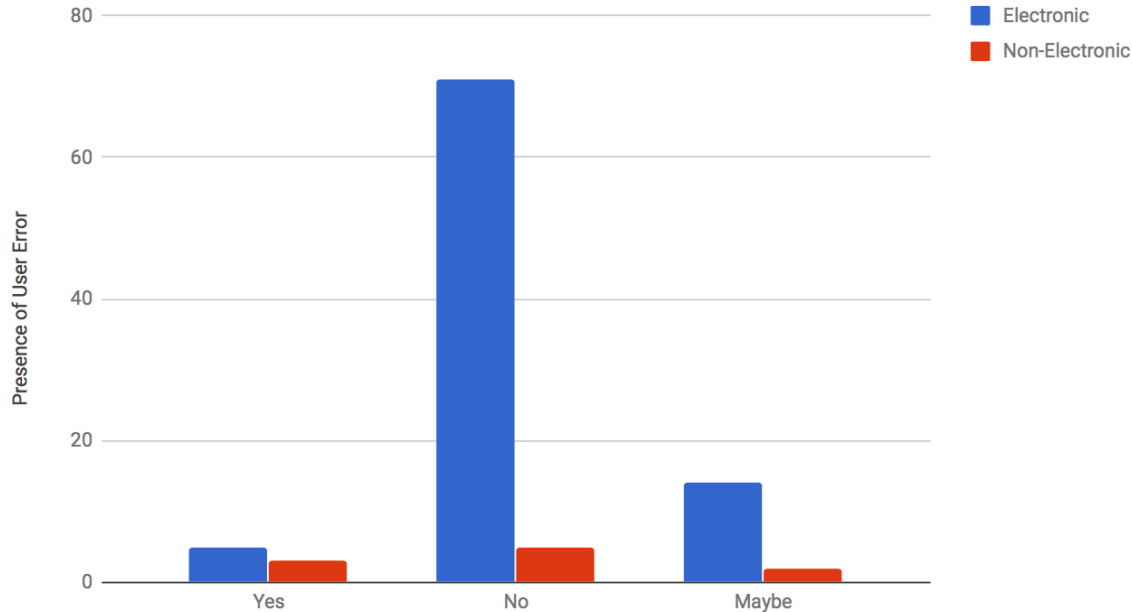
- What are breakdowns?
  - When something doesn't work the way the designer or the user intended it to
    - Can occur in electronic and non-electronic devices
    - May have work-arounds available
    - Viscosity
- Research Questions:
  - What kind of breakdowns are most likely to occur?
  - Was there a correlation between how impactful the breakdown was and if there was an available work-around?
  - Where were breakdowns more likely to occur?

# Methods

- Analyzed the variety of data on breakdowns our group had collected in Project 3, focusing on specific research questions/categories of interest.
- Used the data from the spreadsheet to create visualizations (maps, pie charts, bar graphs) to analyze the data in alternative ways and effectively communicate it to our peers.
- Analyzed the data according to the data presented in the visualization form, the total data recorded about the breakdowns, and general knowledge of students' lives.

# Electronic vs Non-Electronic and User Error

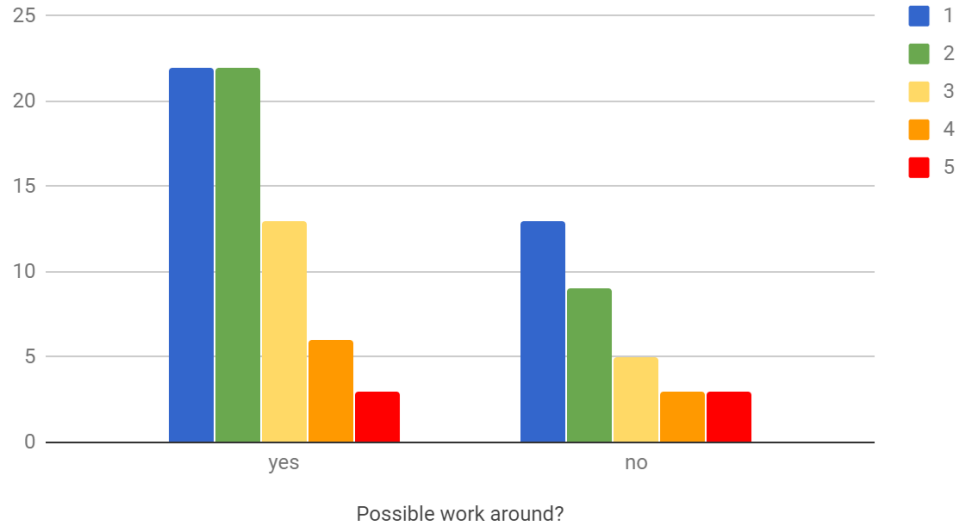
Presence of user error vs. electronic/non-electronic



- The majority of breakdowns are electronic, as opposed to non-electronic
- User error is rarely credited as reason for electronic breakdowns, as opposed to the relatively even distribution for non-electronic breakdowns

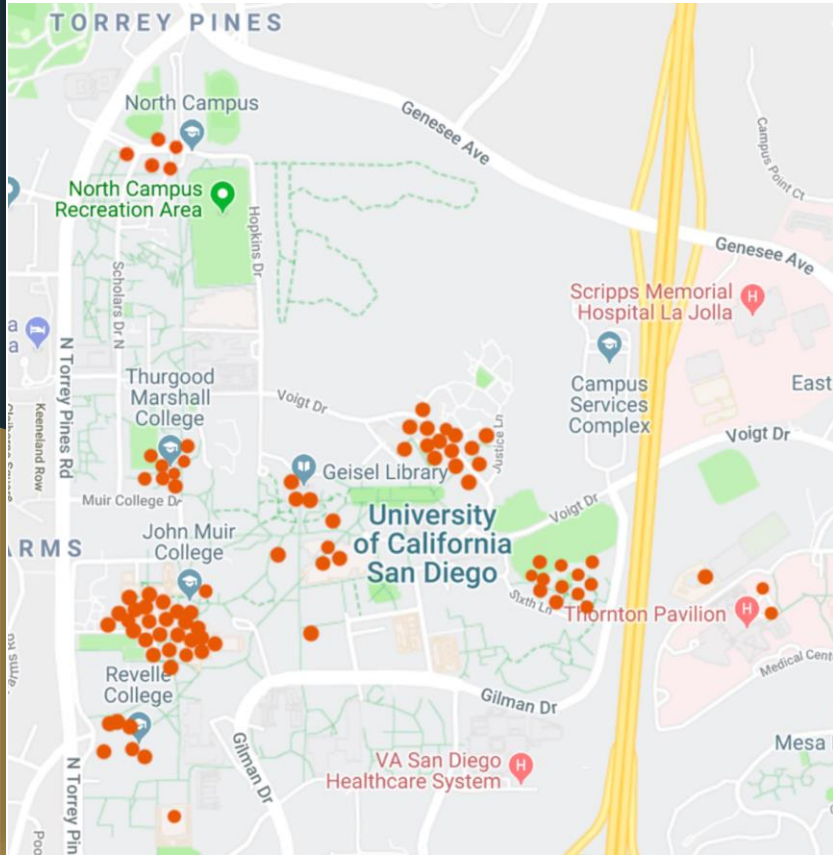
# Impactfulness and Work-Around Availability

Impact vs. Availability of Work-around



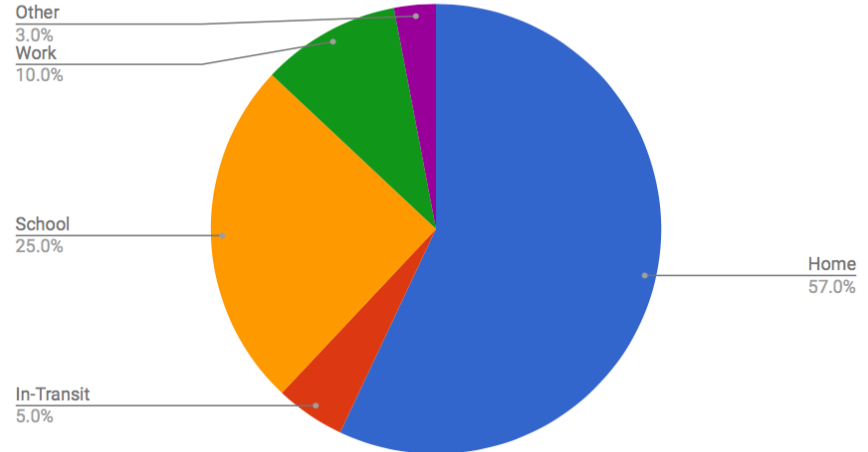
- Twice as many subjects found work-arounds than those who didn't
  - (66 did, 33 did not)
- Work-arounds were found more frequently for less-impactful breakdowns (levels 1, 2)
- The average impact with available work-around (3) vs average impact with no work-around (2)
- However, there were fewer work-arounds for the most impactful breakdowns (levels 4, 5)

# Where Breakdowns Occur



- The majority of breakdowns occurred in the subject's place of residence
  - Either on or off campus
- The second was at school
  - lecture halls, study rooms, etc.
- Noted clustering around places of residence and study

Where Breakdowns Occurred



# SUMMARY

- Breakdowns are when cognitive artifacts stop working fluidly, and disrupt our processes
- The majority of recorded breakdowns are electronic
- When a work-around is present, subjects tended to report the breakdown as less impactful
- Breakdowns frequently occurred around areas of residence