A USABILITY EVALUATION OF MONEY TRANSFER APPS IN THE UNITED STATES

Chisaki Nakaizumi, Sara Patel, Brianna Wang, Hiroki Kimura, Rebecca Li, Yueming Yuan, Karen Sowon and Lorrie Faith Cranor (Carnegie Mellon University)

Background

- 6 in 10 Americans have used money transfer applications
- Motivating factors: convenience, ease of use, perceived safety

Problem

- Accidentally sending money to the wrong recipient
- Users bear responsibility for mistakes and may loose money

Research Questions

Q1: What usability problems are present in current money transfer app interfaces?

Q2: How do real-life conditions such as being in a rush or having an interruption while using money transfer apps impact the likelihood of user mistakes?

Q3: How can money transfer interfaces be re-designed to reduce user errors and increase usability?

Methods

Design, and Data Collection

Walkthroughs

Identified areas of error susceptibility:

- Selecting a recipient (similar display names)
- Selecting a command (pay or request) using two similarly-formatted option buttons
- Confirming a transaction using limited transaction details.

Population

Demographics of selected participants

- 10 participants between the age of 19 -29
- Experience with money transfer apps
- Within-subject study
- Conditions presented in randomized order (learning effects)

Experiments

Simulated conditions and user tasks

- General
- Rushed
- Manipulated user input (does user notice change in the output?)
- With distraction (incoming call)

Iterations

Completed two user testing phases

- Cycle 1: Venmo and PayPal baseline interfaces
- Cycle 2: Improved prototypes based on insights from cycle

Results

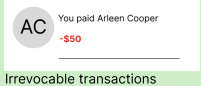
Participants made similar mistakes on both Venmo and PayPal, especially when dealing with similar name conditions

Cycle 1 Insights

- Time constraints are insignificant to user errors
- Errors increase in similar recipient name instances
- Users distracted by incoming notifications

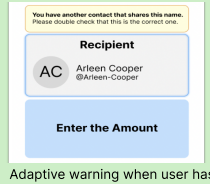
Indistinct confirm buttons

Similarly formatted commands

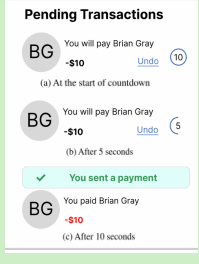


Irrevocable transactions

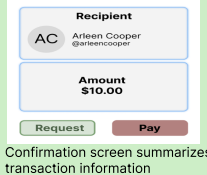
Improved Prototypes



Adaptive warning when user has recipients with similar names

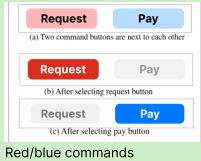


Payment recall function with timer countdown



Confirmation screen summarizes transaction information

Blue/gray commands



Red/blue commands

Cycle 2 insights and Future Work

- Universal preference for new prototypes; color-coded commands favored for visibility during payment execution.
- Option to mute all notifications during transaction.
- Implement study with a bigger sample to better evaluate new prototype designs.