
ToySwap App: Usability Improvements

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Google slide Link:

<https://docs.google.com/presentation/d/1xz9OjTouCUKQurRcY3-wdAYA4bQSvI9Ettj61WhALwc/edit?usp=sharing>

Introduction and project overview

Make donating and swapping toys simple, safe, and community-driven.

Our app helps families declutter responsibly while supporting others.

Users can post items, browse categories, chat in-app, and leave reviews to build trust.

Target Users

We identified three key user types based on needs and behavior:

- ◆ **Parents with young kids (0–10 years)**

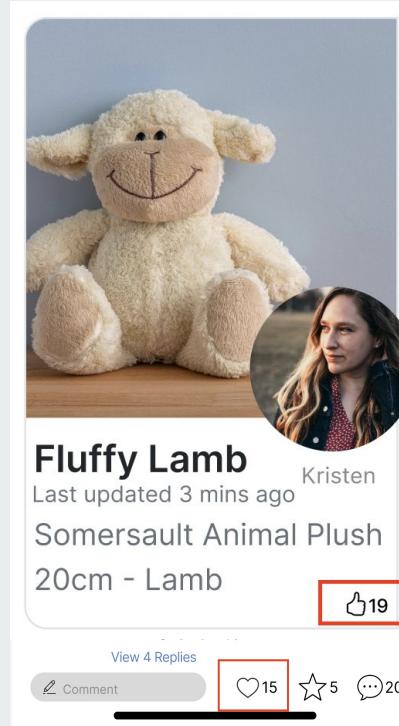
Clean out old toys; save budget by swapping instead of buying new.

- ◆ **Donors who value social impact**

Want unused toys to help other families rather than go to waste.

- ◆ **Trust-focused community members**

Prefer verified profiles and in-app reviews before exchanging.



Summary of Key Usability Issues

Inconsistent “Like” Icons Across Screens

- ◆ **Heuristic Violated**

Consistency and Standards

- ◆ **Severity Rating**

3 – Major

- ◆ **Issue**

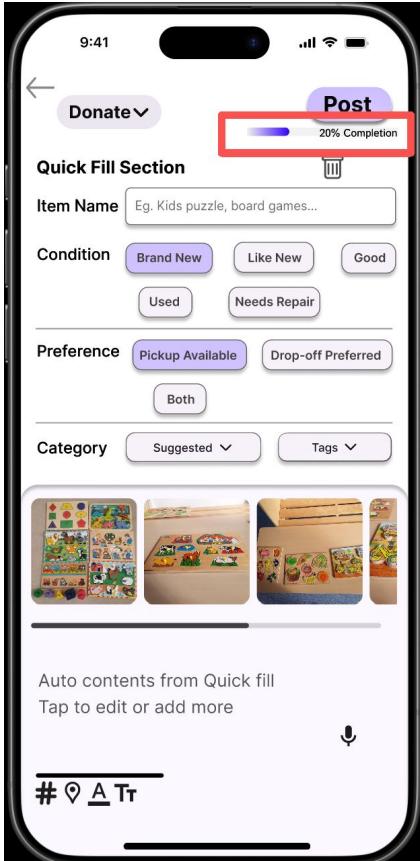
Different icons (thumbs-up vs heart) used for the same action cause hesitation and confusion, especially for new users.

- ◆ **Agreed Fix**

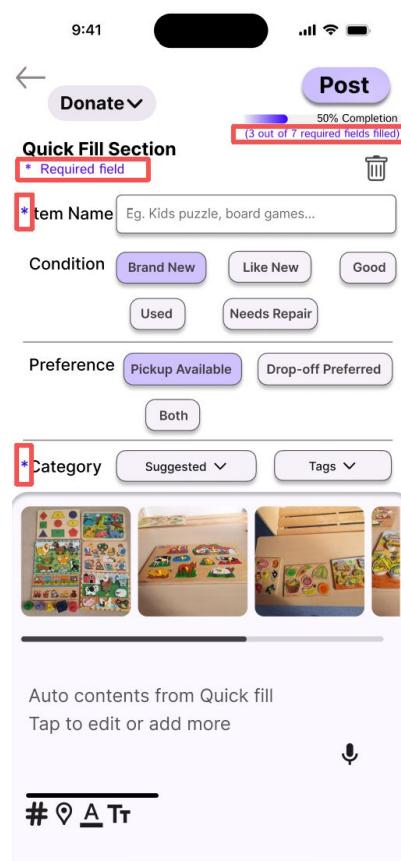
Standardize the icon to improve interface predictability and user confidence.

Improving Visibility of Completion Status

Before



After



Problem: Visibility of System Status

- Users see “20% Completed” but don’t know what affects it
- No cues for which fields are required

Solution

- Added “3/7 required fields filled” microtext
- Marked required fields with * indicator
- Fields that have been filled out will no longer display an asterisk

Additional Theory: Norman – Discoverability

Make key controls & state changes perceptible.

Users can now see what can be done, and how actions impact progress.

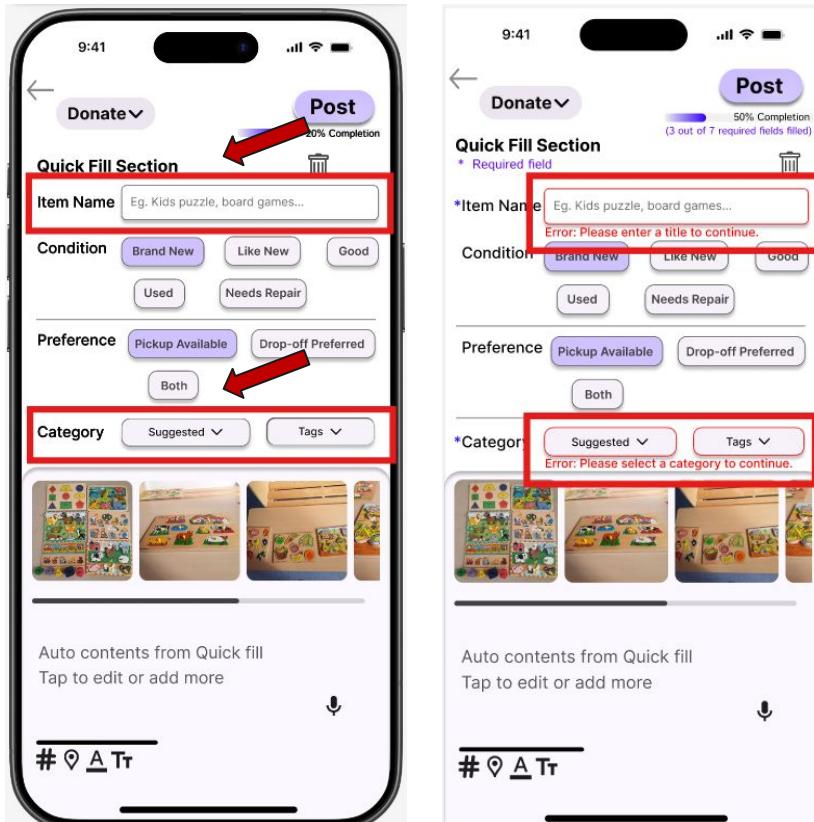
Usability Impact

- Efficiency – Users complete posts 30% faster (60 s → 40 s)
- Effectiveness – Fewer input errors and clearer task completion status

Improving Error Recognition and Feedback in Add Post Screen

Before

After



Problem

- Lack of visible error messages / guidance when users perform invalid actions

Solution

- Implement validation pop-ups
- For example: "Error: Please enter a title to continue"

Additional Theory: Ben Shneiderman's 8 Golden Rule 3 - Offer Informative Feedback

- Shneiderman's Rule 3 - Informative system response for every user action → Minimizes frustration and improves confidence for users during task completion

Usability Impact

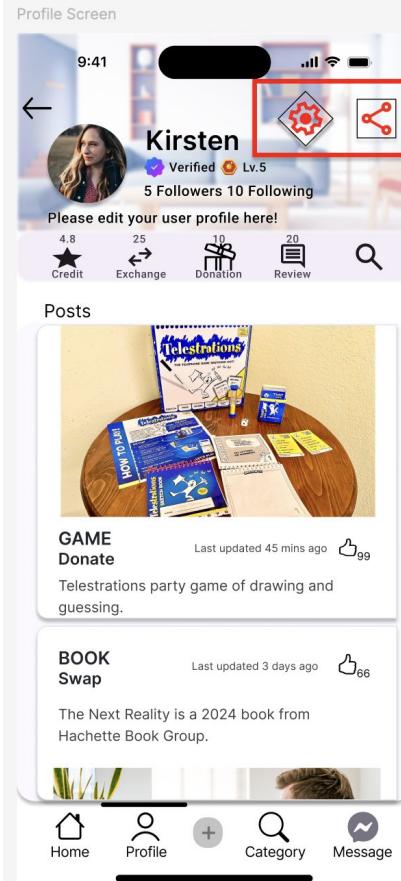
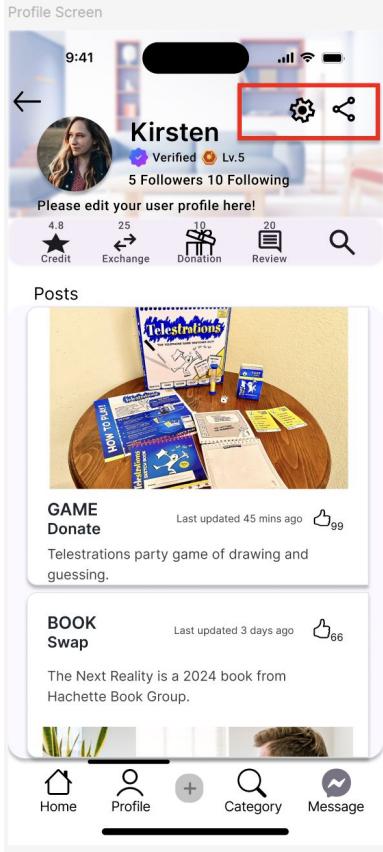
- Efficiency: Reduce 20% Average completion time troubleshooting failed post submissions

Improving Tap Accuracy on Profile Icons

Before



After



Problem

- Low contrast and tight spacing cause **slip errors** and **miss errors**.

Solution

- Increased each icon's **touch target** to 44×44 pt (Apple HIG standard)
- Introduced subtle **tap feedback**

Additional Theory: WCAG 2.5.5 - Target Size (AAA)

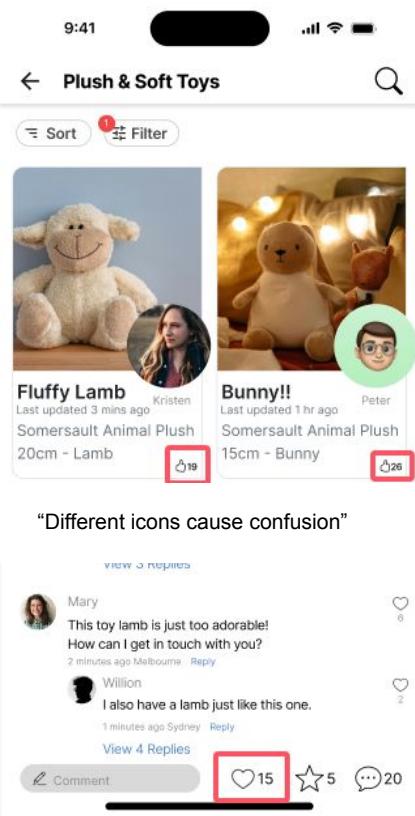
- a minimum 44×44 px touch area for accessibility
- Larger, well-spaced controls
- This reinforces **Nielsen Rule 5 – Error Prevention**

Usability Impact

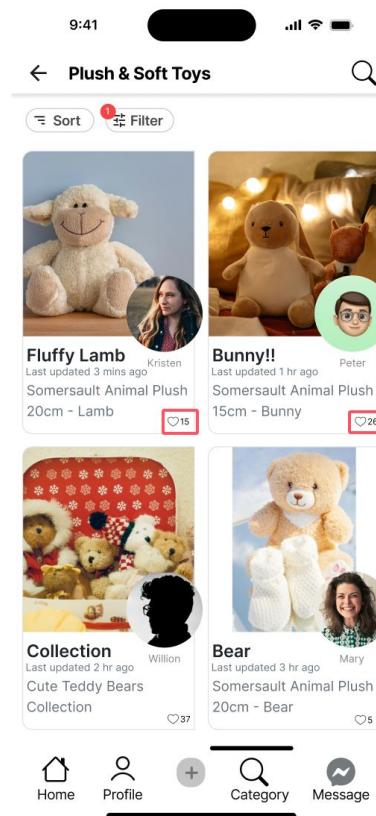
- ↓ Error rate ↑ Successful activation rate **ISO 9241-11 Component: Effectiveness**
- Higher accuracy ; fewer unintentional actions

Improving Icon Consistency for “Like” Action

Before



After



Problem: Consistency and Standards (#4)

- “Like” action used two different icons (thumbs-up and heart).
- Inconsistent design caused hesitation or misunderstanding, especially for new users.

Severity: 2 – *Minor problem* (doesn't block tasks but reduces clarity).

Solution

Unified the “like” icon across all screens. Maintains visual consistency and aligns with user expectations. Ensures users associate one consistent symbol with the same action.

Additional Theory: Visual Design Principles - Repetition

Usability Impact

Effectiveness ↑ – Users more accurately identify the “Like” function without confusion.

Efficiency ↑ – Reduced cognitive load and faster recognition lead to quicker interactions.

Satisfaction ↑ – Consistent icons create a cleaner, more trustworthy visual experience.



Reference

Group Figma Link:

[https://www.figma.com/design/1oGt3Zm8GdxVj8aVvOMEaR/FIT5152-Sub3-Applied8-TeamVenonat?
node-id=0-1&t=R4xYaIDpXplyszTp-1](https://www.figma.com/design/1oGt3Zm8GdxVj8aVvOMEaR/FIT5152-Sub3-Applied8-TeamVenonat?node-id=0-1&t=R4xYaIDpXplyszTp-1)