HCI Design Diary: Improving Twitter's Thread (Flood) Reading Experience

1. Introduction and Association with the Literature

Description of The Task: Efficiently read and navigate long tweet threads on Twitter's (X) mobile app while maintaining context.

Problem Definition: Twitter's current interface creates a disjointed reading experience for extended threads, forcing users to switch between main tweets and comments. This negatively impacts usability and user satisfaction.

Why is it an HCI problem?

Cognitive Load: Constant switching between main thread and comments increases mental effort.

Efficiency: Locating continuation tweets in comments complicates the reading process.

User Experience: Inconsistent thread display disrupts reading flow, causing frustration.

Interaction Design: The interface does not provide easy navigation for long conversations, hindering user flow.

Information Architecture: Thread presentation doesn't align with users' expectations of linear reading.

These issues highlight the need for improved interface design to enhance user experience and align with HCI principles.

Application of Norman's Seven Stages of Action Model

Norman's Seven Stages of Action model provides a framework for understanding how users interact with systems and how design can better support users' intentions (Norman, 2013, p. 41-42). In the context of reading the Twitter threads, the following stages highlight the main problems:

1. **Goal:** The user aims to read the thread sequentially.

2. **Plan:** They expect to scroll smoothly through the tweets.

3. **Specify:** The user prepares to scroll down for the next tweet.

4. **Perform:** Scrolling is disrupted when tweets appear in the comment section.

5. **Perceive:** The user notices the break in continuity.

6. **Interpret:** They conclude the thread is fragmented or incomplete.

7. **Compare:** The user realizes extra steps are needed, leading to frustration and a suboptimal experience.

Application of Shneiderman's Eight Golden Rules of Interface Design

Shneiderman's Eight Golden Rules of Interface Design provide key principles for creating interfaces that enhance usability, minimize user effort, and improve interaction efficiency (Shneiderman et al., 2018, p. 95-97). In the context of reading Twitter threads, applying these rules highlights the main issues and potential improvements.

1. **Consistency:** A unified thread view prevents confusion by keeping all tweets together.

2. **Universal Usability:** A simple, intuitive layout ensures accessibility for all user levels.

3. **Informative Feedback:** Progress indicators show users their position in the thread.

4. **Closure**: Clear visual markers signal when the thread is complete.

5. **Error Prevention:** A single-page layout avoids missed tweets.

6. **Reversibility:** Users can scroll back easily without extra navigation.

7. **User Control:** "Show/Hide Replies" offers flexibility in viewing responses.

8. **Memory Load Reduction:** Continuous display minimizes the need to remember previous tweets.

This design enhances usability by simplifying navigation, reducing errors, and offering better control, following Shneiderman's principles for an efficient and user-friendly experience.

Screenshots to The Details of The Problem

The above-mentioned problem is shown in the screenshot with yellow arrows where the tweet flood cannot be integrated. The area shown with green lines is the beginning of the area where comments made by other users and replies given by the tweet owner account are displayed, and this part can cause confusion for users.

2. Recommendations, Proposed Solution

The current structure of Twitter threads creates a disjointed reading experience, forcing users to navigate between main tweets and replies. This leads to confusion and fragmentation. Here are a few ideas to fix this:

Single Page View: Let's show all tweets on one page, one after another. This way, users don't have to switch between different sections.

Progress Bar: Add a progress bar at the bottom of the screen. It'll help users see how much of the thread they've read.

Highlight Active Tweet: Make the tweet in the center of the screen stand out with a different color. This makes it easier to keep track of what you're reading.

Hide Replies Option: Add a "Show/Hide Replies" button. Users can focus on the main thread if they want to.

There may be more professional solutions for the problem I mentioned, but my solution suggestions consist of minor improvements. I visualized the solutions I suggested for the problems mentioned above using Figma. The Figma file in the link contains 2 twitter pages. You can access them here: File-Link or Prototype-Link

3. References

Norman, D. (2013). The design of everyday things: Revised and expanded edition. Basic books.

Shneiderman, B., Plaisant, C., Cohen, M., Jacobs, S., Elmqvist, N., & Diakopoulos, N. (2018). Designing the User Interface: Strategies for Effective Human-Computer Interaction, Global Edition. Pearson Higher Ed.