Balancing Self-care & Privacy: A Semi-automated Analysis of Reddit Conversations on ChatGPT-Based Mental Health Support

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sefcóm
security engineering for future computing

Motivation & Goals

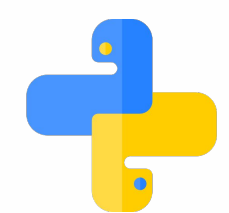As tools like ChatGPT enter health contexts, users show **high engagement but limited privacy awareness** [1].

Despite the increased use of GenAI tools for mental health help, **little is known about how users perceive privacy** in these contexts.

Understanding user perceptions is **critical** for designing tools and policies that better **protect** the digital privacy and **safety** of users.
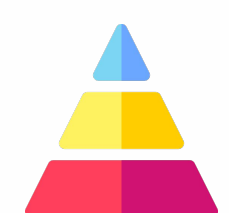
Methodology

Manual Collection of relevant Reddit "posts and threads"

Automated Collection of "comments" from collected posts using Python

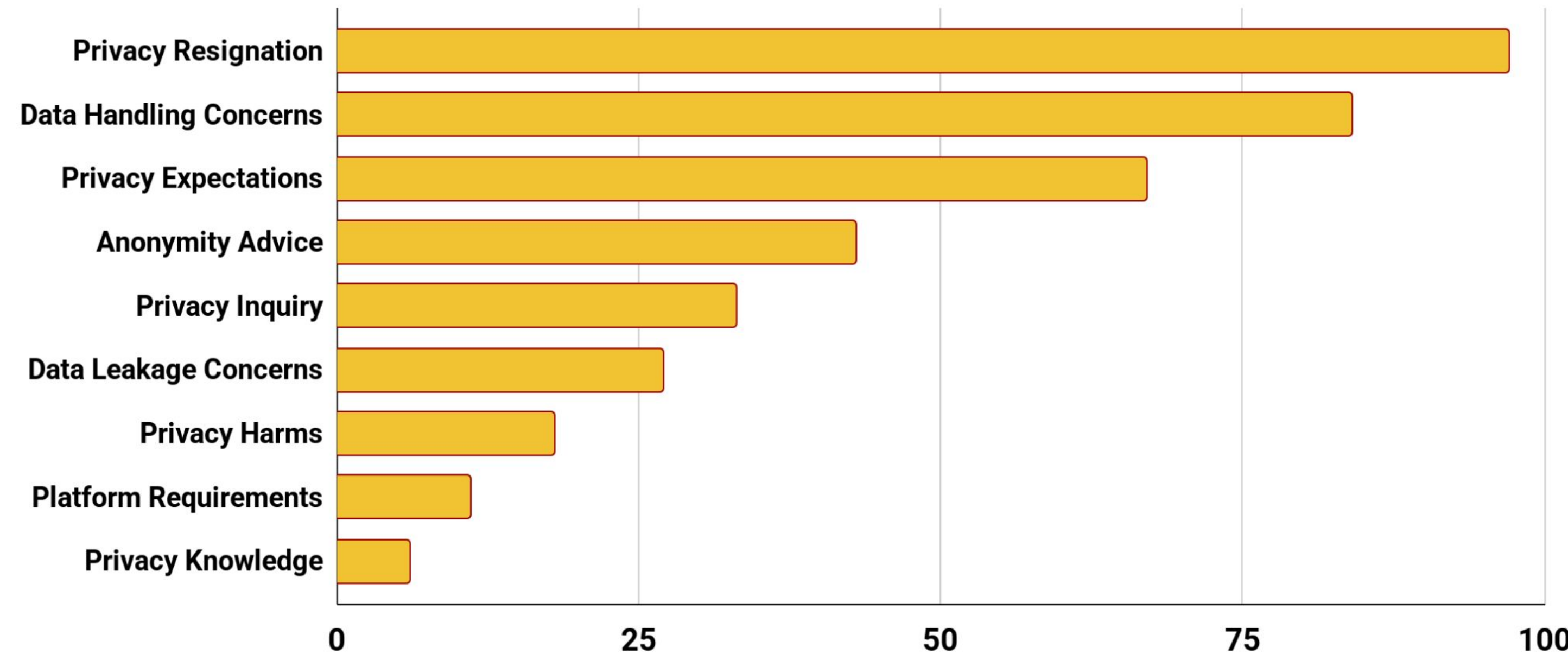**Thematic Labeling** of an initial sample of comments using GPT-4o

Creation of Theme Hierarchy through revisions and discussions

Fine tune GPT-4o prompt to **label entire dataset** using the theme hierarchy

Frequency of Topics Across Reddit Discussions

The thing is: it's a trade-off. From a privacy standpoint, it's a terrible idea. But if it's making a difference to your life, then that's also worth considering.

Skills Learned

- End-to-end **Research Process**
- Reddit Data Collection using **Python**
  - *Reddit API, PRAW, Pandas*
- Semi-automated **Content Analysis**
  - *Prompt Tuning, OpenAI API*

Next Steps

- **Expanding the Scope**
  - *More social media platforms*
  - *Other AI chatbots*
- **Conducting a Survey** with a specific *age demographics*
- Write a **Research Paper**

[1] Liu et al. "Prevalence Overshadows Concerns? Understanding Chinese Users' Privacy Awareness and Expectations Towards LLM-Based Healthcare Consultation." In IEEE S&P 2025

Findings

Users mostly pose concerns surrounding **data handling/transparency (n=84)** and **possible leakage (n=27)**

"What you input is used to train the AI–it's in their privacy statement"

"[Your data] could get leaked and ruin your reputation or credibility."

However, **many users (n=97)** accept privacy concerns because of **perceived benefits, low fear of direct harm**, and **limited control over privacy** in general

"It's a lot easier and less scary to go to a website and talk to a screen than actual people"

"I've never gotten good examples from people of how such info could be used to do any real tangible harm to you."

"Honestly, I don't even care anymore about my privacy. It's out there everywhere being invaded."