One AI, Two Contexts — Rethinking AI-UX Across Phone and PC

Keerthana Govindarazan* (Ideation, Data Collection, Data Analysis)

Chaehyeon Lim** (Ideation, Data Collection, Data Analysis)

Jungwoo Jang** (Data Collection, Data Analysis)

*PhD Student, Penn State, USA
** PhD Student, Interaction Science Dept, Sungkyunkwan University, Seoul, South Korea

Gen AI chatbots often use the same interface across phone and desktop
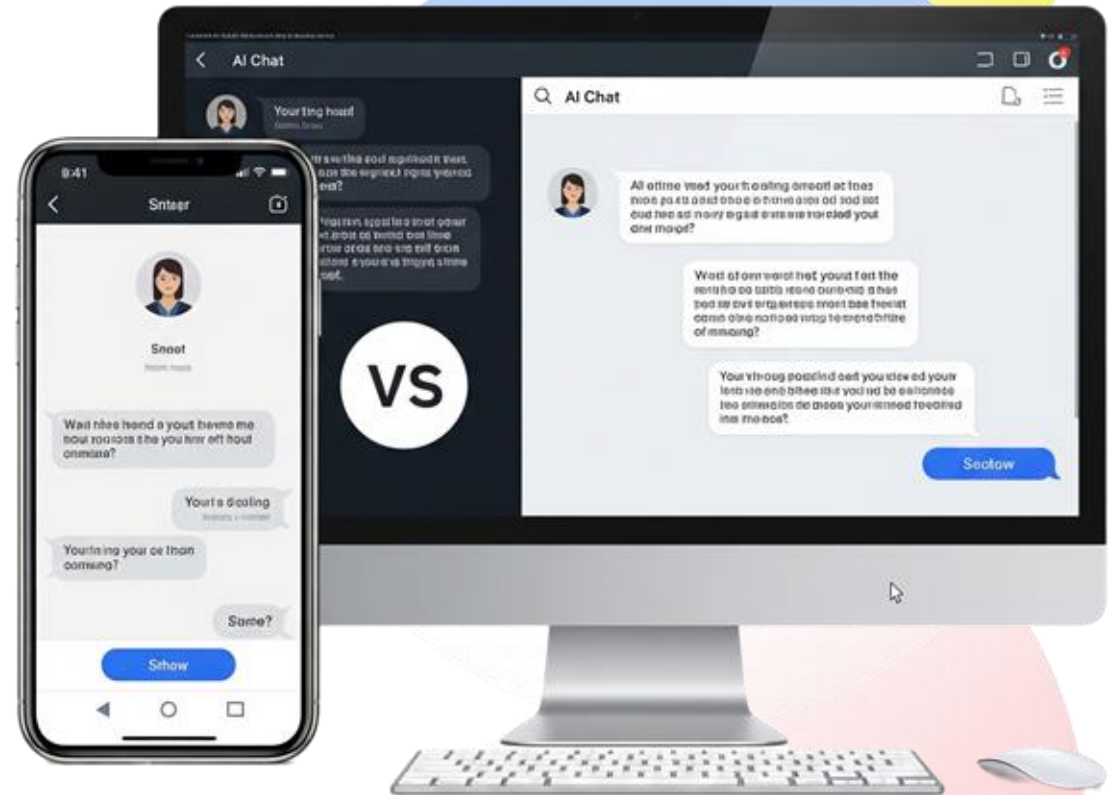
But device context may change:

- task type

- trust & verification behavior

- perceived AI persona

Do users relate to and use the same AI differently on phone vs PC?

How should cross-device UI design reflect those differences?

Background

LLM-powered chatbots like ChatGPT are used on both desktops & smartphones.

(Bröhl et al., 2018) **Users use phones primarily for social connection but PCs for work**

(Vincent, 2013) **Users perceive phones as personalized social robots or emotional companions.**

(Tang & Hew, 2022) **Users experience greater social connectedness using phone apps than PC apps.**

(Liao et al., 2023) **Additionally, users pay lesser attention to information on their phones and show lower skepticism toward misinformation compared to PC use.**
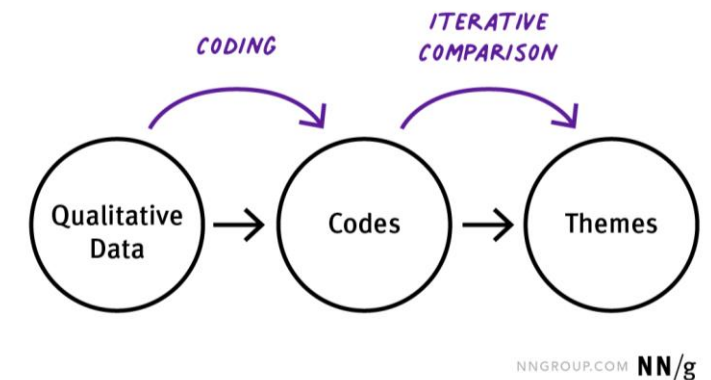
Method

Interview study (n=10)

Participant recruitment via Cloud Research Connect. Interview conducted on Zoom. Interviews conducted till we reached saturation.

Inclusion criteria: Have experience using platforms like ChatGPT, Claude on phone and PC.

Thematic analysis

Thematic Analysis

Participant Recruitment

Thematic Analysis

Phone → personal, lightweight, in-the-moment tasks
"On my phone it feels like messaging a nerdy friend."

Laptop → structured, professional, analytical work
"On the computer it's more like a teacher or co-worker."

Phones = skimming, fewer checks
"I don't double-check unless it's serious — on my phone it's casual."

Laptops = deeper reading & source checking
"On my computer I click sources — on my phone I just read and move on."

Mobile personas suggest social proximity but **emotional attachment was not explicit** in the data → possible **intimacy–skepticism gap.** A survey study is planned as the next step.

Design Takeaways

Support task migration across devices

– "continue on desktop" feature, bookmarks, and resume-task reminders.

Acknowledge device-shaped personas

– AI chatbot on phones = conversational & personal

– AI chatbot on desktops = analytical & task-oriented

→ opportunity for context-aware UX and task-support rather than uniform designs.

Design for trust on mobile

– lighter-weight source previews, citation pop-outs, & verify-later reminders

– reduce friction without burdening quick tasks.

– Support skimming on phones without losing accuracy (key-points, expand-for-details, clearer formatting)

Exploratory Survey study - RQs (in-progress)

RQ1

Uses and Persona

How does user interaction with LLM-based chatbots differ between mobile phones and desktop PCs, in terms of
use cases and perception of chatbot persona?

RQ2

Emotional Attachment

Are users more **emotionally attached** to their chatbots on their phones compared to PCs?
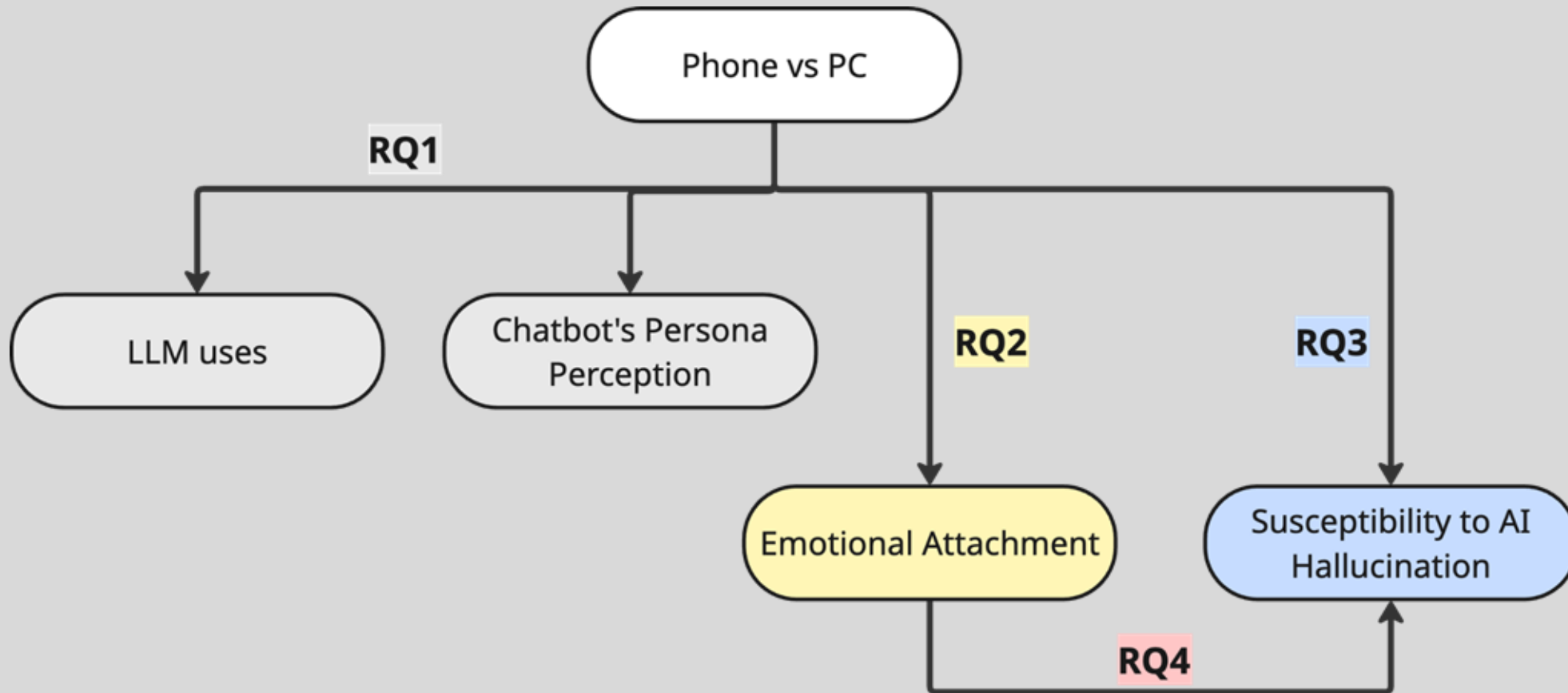
RQ3

Susceptibility to AI Hallucinations

Are users more **susceptible to AI hallucinations** when interacting with LLMs on P vs PC?

RQ4

Emotional Attachment -> Sus. to AI Hallucinations

Does this **emotional attachment make users less vigilant** toward AI response?

Visual RQs for Exploratory Survey study (in-progress)

The End.

Contact: kmg6763@psu.edu
Portfolio: www.govindarazan.com