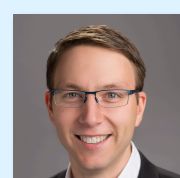# Towards End-User Prompt Engineering:

Lessons from an LLM-based Chatbot Design Tool

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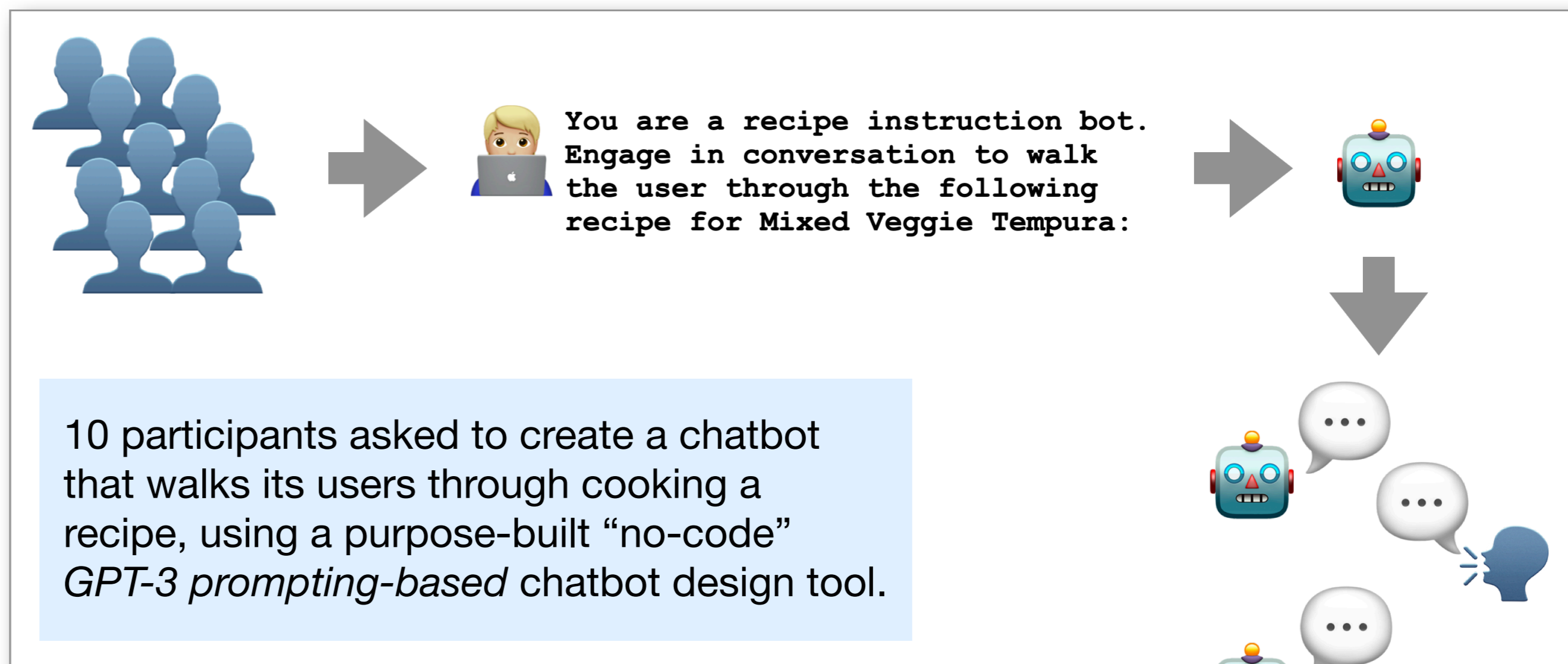qianyang@cornell.edu

⭐ ⭐ ⭐

How do end-users approach prompt design?

How are prompt designers' struggles and the struggles of learning to program…

…similar?
…different?

End users face specific challenges **designing prompts** for **LLM-based tools**—our **design probe** explores how end users **intuitively approach these challenges**.

TASK

You are a recipe instruction bot. Engage in conversation to walk the user through the following recipe for Mixed Veggie Tempura:

10 participants asked to create a chatbot that walks its users through cooking a recipe, using a purpose-built "no-code" *GPT-3 prompting-based* chatbot design tool.

FINDINGS

Similar to Programming

- Users prefer *ad hoc* over systematic testing
- Frequent overgeneralization about capabilities from failures and successes
- Mix commands for *bot* with commands for *users*
- Users unsure where to find and where to place prompt instructions

Unlike Programming

- Heavy bias towards *direct instruction* over providing *examples*
- Users avoid repetition—feels socially "unnatural"
- Polite language preferred
- Preference for "do not" over "do" constructions

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