D-TILE Techniques Part IV: Designing Interaction Flows

Due: Tue, Oct 14 @ 12 pm
Submission: Please submit a PDF version of your assignment to Canvas.

Problem Space

Every system you design must support a clear **back-and-forth exchange between the user and the system.** Whether that's a chatbot conversation, an app workflow, or a hardware device responding to a button press, the quality of the interaction determines whether your design feels natural, useful, or frustrating.

This assignment focuses on **drafting, mapping, and scripting interactions** for your project. By the end, you'll have a first-pass **interaction skeleton** you can refine and test.

Part 1:

Options 1: Conversation Flow Chart

K-scripts are linear; flow charts reveal **branching logic.**

- Expand your script into a **flow chart** showing at least **2 divergent pathways**.
- Use boxes/arrows to represent states, user inputs, and system responses.
- Highlight where users make **choices** and how the system handles them.

Option 2: Interaction Map

Zoom out and create a **map of your system's overall interactions.**

- Include at least **two pathways** in your system.
- Show **4–5 interactions** per pathway (minimum).
- For hardware projects: show user inputs (button press, sensor trigger) → system feedback (LED, voice, display).

- For chatbots/software: show branching dialogues or screens.

Part 2: K-Scripting

A **K-script** is a written, line-by-line record of a dialogue or interaction sequence. It captures what the **user says/does** and what the **system responds with.**

- Choose **one divergent pathway** in your project (at least 4–5 interactions long).
- Write out a **K-script** of the exchange, with at least **10 total lines** of interaction.
- Format example (Chatbot):
    - **User:** “What’s open for lunch?”
    - **System:** “Dining Hall A has stir fry, Dining Hall B has pizza. Do you want me to filter for dietary needs?”
- For apps/devices, translate into **user action vs. system response:**
    - **User taps:** “Schedule Study Group” → **System responds:** “Suggest 3 meeting times.”

Deliverables

- **Flow chart** (diagram with at least 2 branches) ***OR*** **Interaction map** (overview of at least 2 pathways × 4–5 interactions).
- **K-script** (≥10 lines).

Why This Matters

- **Clarity of interaction:** These tools force you to make the user’s experience explicit, not assumed.
- **Foundation for testing:** K-scripts and flow charts double as test scripts for usability sessions.
- **Scalable:** Works for chatbots, apps, or Pi devices, every system relies on structured user-system exchanges.