CORE

Lab 15: The Interactive Behavior Blueprint

Choreograph disclosure, commitment, memory, control, motion, and user flow

Chapter Chapter 15	**Level** Advanced	**Time** ~3-4 hr
Mode Individual or pair	**Technology** Any course-approved LLM	**Deliverable** Map scenario and interaction grammar

Why This Lab Matters

Chapter 15 reframes interactivity as design language. This lab asks you to choreograph how a map reveals, withholds, remembers, controls, and moves so that interaction clarifies the map rather than becoming noise.

> **Essential question**
>
> What cartographic decision should you be able to defend by the end of this lab?

Learning Objectives

- State the cartographic purpose, audience, evidence, and constraints.
- Use an LLM or assistant as a collaborator while preserving human judgment.
- Revise the artifact or prompt based on explicit critique.

At a glance

Inputs: Lab scenario, prompts, data notes, or map concept supplied in the activity.
Outputs: Map scenario and interaction grammar; Disclosure system table; Tooltip/pop-up commitment plan.
Evaluation: Clear purpose, defensible cartographic judgment, concise prompting, and evidence of human verification where needed.

LAB WORK

Setup: Choose an Interactive Map Scenario ~15 min

Choose or reuse a previous lab scenario. The map should need more than one behavior, but not every possible behavior.

- Public library access with filters and pop-ups
- Wildfire risk with time, shelters, and warnings
- EV charger availability with network and charger-type filters
- Neighborhood housing burden with panels and comparison tools
- Environmental monitoring stations with uncertainty and data panels

```
Map scenario
Audience:
Primary user task:
Interaction grammar: exploratory / narrative / analytic / blended
What users should see first:
What users may explore freely:
What users should not be able to do:
Most dangerous possible interaction:
```

PROCEDURE

Part 1 - Select the Interaction Grammar ~25 min

```
Analyze my map scenario and recommend an interaction grammar: exploratory, narrative, analytic,
or blended. Explain what the map should invite users to do, what it should discourage, and how
much agency users should have. Then identify one interaction that sounds useful but would
probably distract from the map's purpose.
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PROCEDURE

Part 2 - Design Disclosure Systems ~35 min

```
Design the disclosure system for this map. Specify legend state, filter defaults, filter
grouping, what is expanded/collapsed, which categories appear by default, how legend entries
update when filters change, reset behavior, and mobile behavior. Include state words
explicitly: expanded, collapsed, active, disabled, hidden, reset.
```

Element	Default state	User action	System response	Failure avoided
Legend	Example: Short note	Example: Short note	Example: Short note	Example: Short note

Element	Default state	User action	System response	Failure avoided
Filters	Example: Short note	Example: Short note	Example: Short note	Example: Short note
Reset	Example: Short note	Example: Short note	Example: Short note	Example: Short note

Starter examples only; expand this in your own notes or submission document.

PROCEDURE

Part 3 - Design Commitment Systems ~35 min

```
Design tooltip and pop-up behavior for this map. Treat hover/tap as curiosity and click as intent. Specify tooltip content, timing, mouseout behavior, mobile replacement behavior, pop-up content hierarchy, close behavior, expansion behavior, and maximum content before the user must choose More details.
```

Pacing

If everything appears on hover, clicking has no job. If everything is hidden behind clicks, curiosity becomes labor.

PROCEDURE

Part 4 - Design Memory and Persistence ~30 min

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Design the memory system for this map. Specify what persists across interactions, what updates automatically, what stays fixed, what resets, what a side panel or dashboard should summarize, and when users can freeze or clear values. Explain how this prevents users from repeatedly reorienting themselves.
```

PROCEDURE

Part 5 - Design Control Systems ~30 min

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Design layer toggles, menus, and optional locator map behavior. Specify which layers are locked, which are toggleable, whether reordering is allowed, which controls are primary vs secondary, which tools go into menus, whether a locator map is needed, and which features should be refused to prevent scope creep.
```

PROCEDURE

Part 6 - Design Motion and Continuity ~25 min

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Design transition behavior for this map. Specify which state changes deserve smooth motion,
which should be abrupt, duration, easing, synchronization, reduced-motion behavior, and when
motion stops. Explain where smoothness would clarify continuity and where it would mislead.
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PROCEDURE

Part 7 - Orchestrate the User Flow ~35 min

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Write a user flow for this interactive map. Include what users see first, what invites the next
action, what happens after hover/click/filter/reset, where users are allowed to pause, where
exploration is free, where the map shifts into narrative or analytic mode, and how users return
to overview.
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PROCEDURE

Part 8 - Test by Subtraction and Variation ~30 min

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Critique this interaction design. Identify under-specified states, over-specified affordances,
inconsistent states, gratuitous animation, and possible validation bias. Then recommend three
subtractions and two small prompt variations to test whether the design is robust.
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PROCEDURE

Part 9 - Compile the Behavioral Specification ~30 min

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Compile my decisions into a production-ready Behavioral Specification. Include interaction
grammar, disclosure, commitment, memory, control, motion, user flow, accessibility, mobile
behavior, state synchronization rules, features explicitly excluded, testing prompts, and a
self-check asking the assistant whether each behavior clarifies or clutters.
```

DELIVERABLE

Submission ~20 min

- Map scenario and interaction grammar

- Disclosure system table
- Tooltip/pop-up commitment plan
- Memory and persistence plan
- Control system scope decision
- Motion and continuity rules
- User flow
- Subtraction and variation tests
- Final Behavioral Specification
- 500-700 word reflection on interactivity as rhetoric