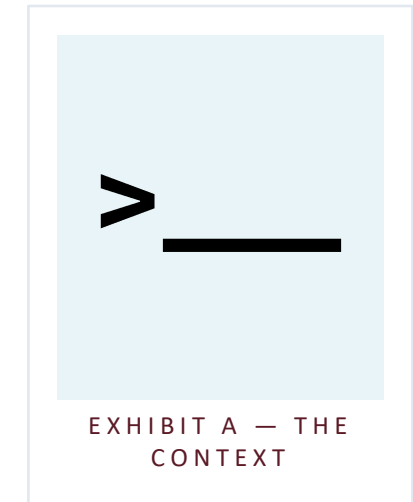


ITAG 2026 · THE MEADOWS, ALTOONA · SKINNER C

The Case of the Perfect Prompt List.



Stop searching for the perfect prompt list. Start communicating like a human. A working session for Iowa county IT and GIS folks on the AI tools that already live inside ArcGIS — and the ones that don't, yet.

FILED BY

Tim Purdum · dymaptic

JURISDICTION

99 Iowa Counties

SESSION

Tue 1:15–4:30 PM

SPEAKERS · 02 / 23 · THE INVESTIGATORS

Hello, we're **dymaptic**. We love to build **GIS software**.



CO-PRESENTER · 01

Tim Purdum

Director of Product Development, dymaptic
Inventor of GeoBlazor
Designs custom GIS apps for clients



CO-PRESENTER · 02

Holly Kluever

Chief Operating Officer, dymaptic
Manages business ops, marketing, HR
GIS enthusiast

What we're doing
TODAY'S DOCKET for the next 2¾ hours.

What we're doing for the next 2¾ hours.

1:15 – 1:35	Welcome + AI primer	FIRST HALF
1:35 – 1:50	Icebreaker · the robot draws a house	FIRST HALF
1:50 – 2:20	Context exercise — everyone types	FIRST HALF
2:20 – 2:30	Sticky notes + intro to brainstorming	FIRST HALF
2:30 – 2:45	ArcGIS AI assistants tour, part 1	FIRST HALF
2:45 – 3:15	Break	—
3:15 – 3:25	Sticky-note share + tour, part 2	SECOND HALF
3:25 – 3:50	Brainstorming with AI · paired	SECOND HALF
3:50 – 4:10	Arcade in two tools · hands-on	SECOND HALF
4:10 – 4:25	When AI is confidently wrong	SECOND HALF
4:25 – 4:30	Wrap + take-home	SECOND HALF

EVIDENCE LOCKER · RESOURCES

Everything for today, on one page.

- **Today's data**
Iowa National Bridge Inventory · NBI
- **Iowa county boundaries**
Reference layer · COUNTYNS + FIPS
- **The 8 ArcGIS AI assistants**
with the two toggles you'll need
- **Try-tonight links**
doc.arcgis.com · Map Viewer · Pro
- **Take-home cards**
Half-sheets at every seat



<https://tinyurl.com/3c84dhvt>

THE THESIS

*The trick isn't
the prompt.
The trick is
the context.*

EVIDENCE A

SECTION 01

01

What even is “AI”?

AI means three different things.

CHATGPT · CLAUDE · COPILOT

LLMs.

Text in, text out. They've read most of the public internet, but they have not read your AGOL org. No inherent knowledge of your layer schema until you give it to them.

PRETRAINED MODELS IN LIVING ATLAS

GeoAI.

Building footprint extraction, road extraction, land-cover classification. Imagery in, features out. If somebody at lunch says “we used AI to map every building,” this is probably what they mean.

LLMS GIVEN GIS CONTEXT

AI Assistants.

Esri wraps LLMs with your schema and the Arcade spec, exposes them as buttons inside Map Viewer, Pro, Survey123, StoryMaps. The middle ground we'll spend the most time on.

AI PRIMER · 01

LLMs.

Text in. Text out. No idea what your layer schema looks like — until you tell it.

AI PRIMER · 02

GeoAI.

Pretrained deep-learning models in Living Atlas. Building footprints, road extraction, land cover. Imagery in, features out.

AI PRIMER · 03

AI *Assistants.*

LLMs given GIS context. Esri wraps them with your schema, the Arcade spec, the docs —
exposes them as buttons inside ArcGIS.

AI PRIMER · PICK ONE

*When someone says
“AI,” figure out
which one.*

SECTION 02

02

*The robot
draws a house.*

EXERCISE 0 · TOGETHER · ~10 MIN

Tell me how to draw a house.

1. Pick a volunteer to give me instructions.
2. I am the robot. I do exactly what you say – nothing more.
3. Audience watches and shouts corrections.
4. We stop when the house looks like a house.

Lands the point: this is what AI does when you under-specify.

So when does AI actually work?

- Drafting from rough notes you already have.
- Summarizing long documents and threads.
- Searching across messy text where keyword search dies.
- Translating between formats — Excel ↔ JSON ↔ SQL.
- Boilerplate — Arcade, popups, forms, regex.
- A second pair of eyes on a layout, a sentence, a workflow.
- Explaining the same thing for three different audiences.

THE LIMIT

AI can research.

AI can explain.

*AI can write
the code.*

*It can't make
the decision.*

SECTION 03

03

*Context is
the magic word.*

Same task, four levels of context.

Layer: Iowa National Bridge Inventory (link on resources page)

Round 1: Write Arcade for a bridge popup.

Round 2: + Field name (YEAR_BUILT_027)

Round 3: + 5 sample rows + field types

Round 4: + What good output looks like (audience: county engineer)

Open your chatbot. Type each round. Compare each round's output across your table.

BREAK · 30 MIN · STICKY NOTES

Stretch. Coffee.

Sticky notes.

Grab two sticky notes from the table.

#1 – A GIS task you wish AI could do for you.

#2 – A GIS task you tried with AI and it failed.

Stick both on the back wall before we start back up.

We'll come back, pick a few off the wall, and brainstorm them together.

SECTION 04

04

*Eight assistants,
already shipping.*

Pick the workflow you hate. Try AI before Google.

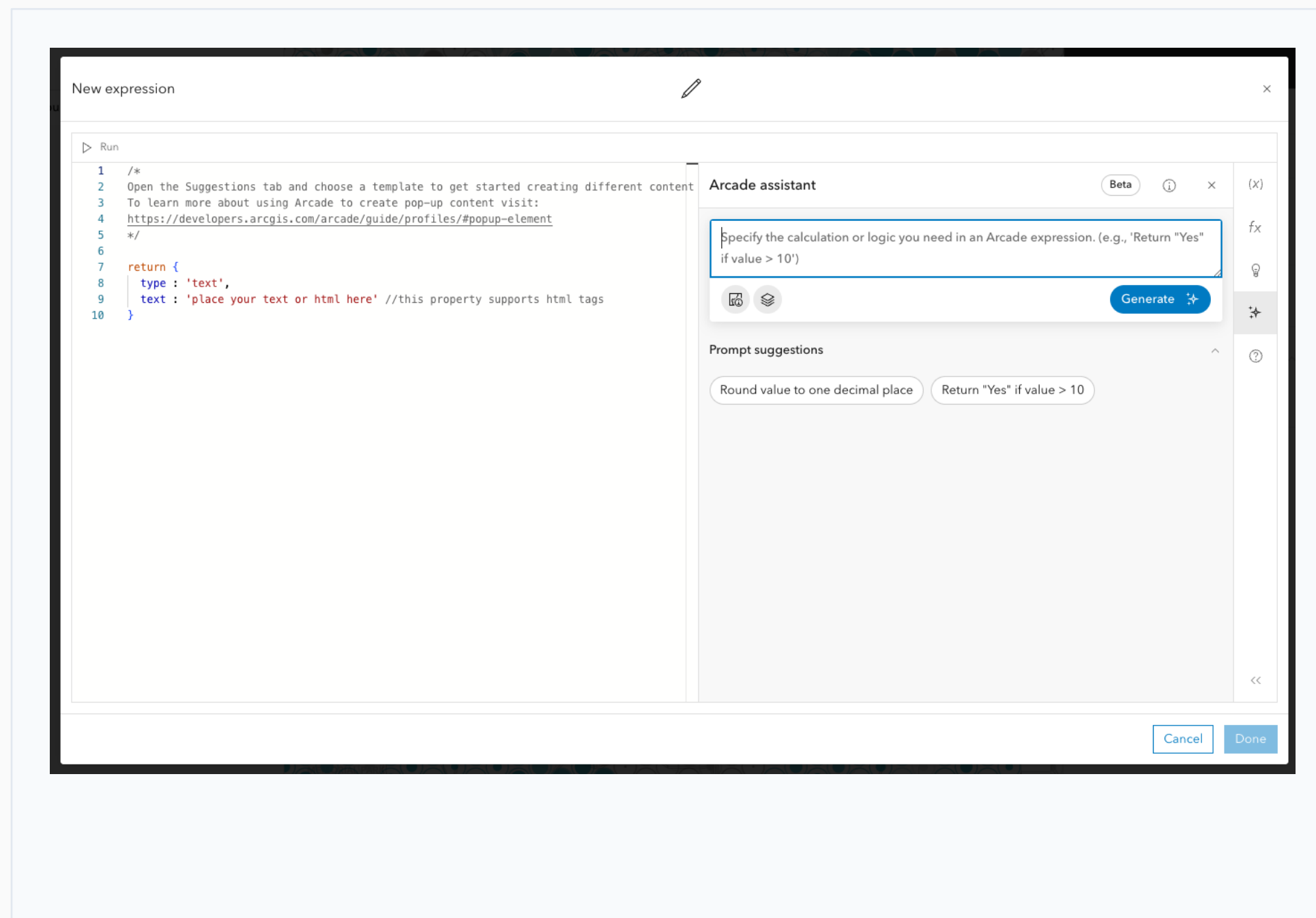
- *"I keep writing Arcade by hand."*
- *"I can never remember the arcpy syntax."*
- *"I'm building yet another inspection form."*
- *"We have 50 layers and no decent metadata."*
- *"I want to publish a story but writing isn't my thing."*

Arcade Assistant.

MAP VIEWER · FIELD MAPS · EXPERIENCE BUILDER

Plain English in, working Arcade out. Lives wherever you write Arcade. Knows your layer schema. The 30-minute job becomes 3 minutes.

Where it gets weird: still hallucinates field names sometimes. Read before you paste.

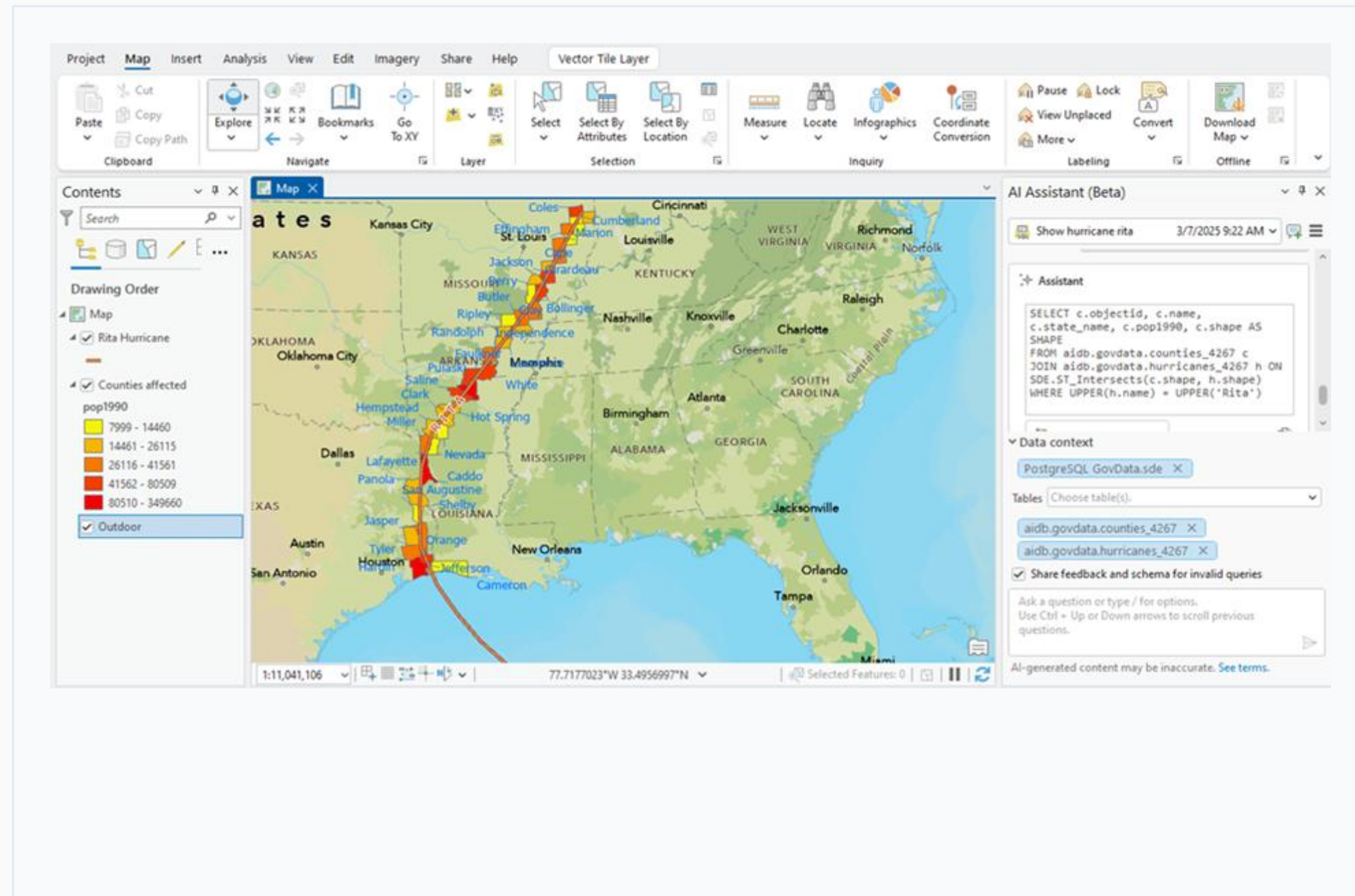


ArcGIS Pro Assistant.

ARCGIS PRO · ARCPY MODE

Describe the script, get the script. "Buffer all selected features by their DISTANCE field and dissolve" — that's a real prompt that works.

Knows the difference between arcpy.analysis.Buffer and arcpy.management.Buffer — usually.

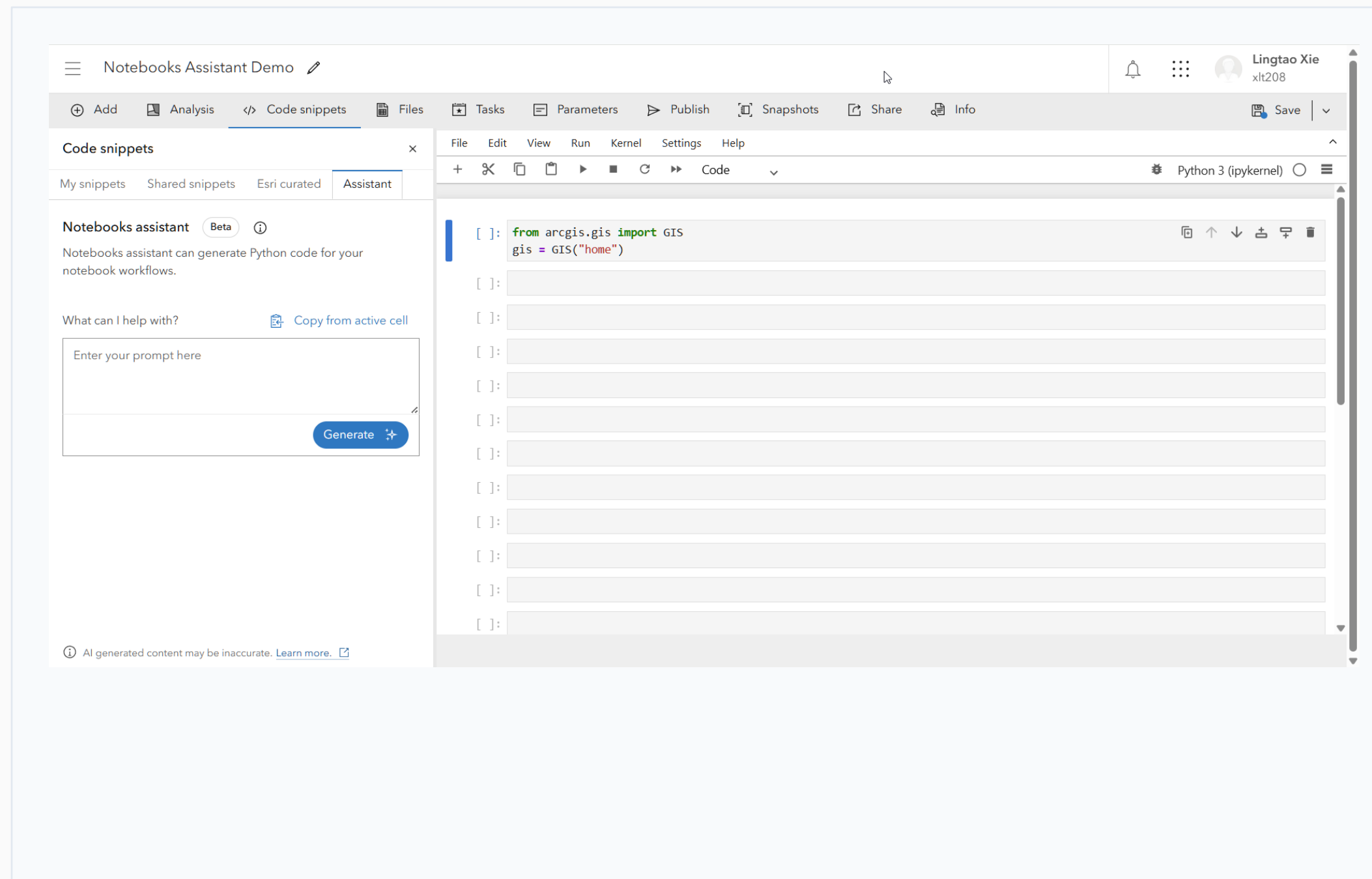


Notebooks Assistant.

ARCGIS NOTEBOOKS · AGOL + PRO

Same Pro Assistant brain, in your notebook. Plus debugging help: paste an error, get a fix.

Best when you already know the analysis you want and just can't remember the exact API call.



Survey123 Assistant.

SURVEY123 CONNECT + WEB DESIGNER

Describe the inspection form — "Bridge: GPS, photo, deck condition, load rating, inspector notes" — get a draft survey.

Bonus: point it at an existing survey, get translated versions in other languages.

The screenshot shows the 'New survey' interface with four options for creating a survey. The 'Survey123 assistant' option is highlighted with a yellow border. Each option includes an icon, a title, a list of features, and a 'Get started' button.

New survey

Using the web designer

- Blank survey**
 - Start from scratch
 - Design your own survey
 - Use a drag-and-drop editor
- Survey123 assistant PREVIEW**
 - Start with a conversation
 - AI-powered survey design
 - Automate survey creation
- Template survey**
 - Browse industry templates
 - Pre-configured questions
 - Use a drag-and-drop editor
- Feature layer**
 - Start with a feature layer
 - Design a survey for existing data
 - Use a drag-and-drop editor

BONUS · SURVEY123 FIELD TYPE

Photo in. Fields filled out.

Survey123 has an AI input type: drop in a photo, write a prompt — "extract structure ID, condition, last inspection year" — the model reads the image and pre-fills the fields. One picture, three fields. Toggle in survey settings.

Item Details Assistant.

AGOL ITEM PAGES · ENTERPRISE 12.0+

Proposes titles, summaries, descriptions, tags, field-level descriptions — from what it can read in the data.

Edit from a draft, not from a blank field. The only one shipping in Enterprise today.

Review suggested item information Beta ×

AI generated content may be inaccurate. [Learn more](#)

Title ↶

Global Earthquake Events Dataset

Summary ↶

Comprehensive global dataset of earthquake events with detailed seismic attributes for monitoring and analysis.

Description ↶

`<p>This Feature Service provides a comprehensive dataset of global earthquake events, capturing essential seismic activity data as geographic point features. It is designed to support detailed analysis and monitoring of seismic hazards worldwide.</p><p>Layer Details:</p>Global Earthquake Events: This layer includes individual earthquake occurrences characterized by attributes such as magnitude, depth, geographic coordinates, and event time. It also contains metadata on measurement accuracy and event status to enhance data reliability.<p>Geographic Coverage: The dataset covers a broad global extent, encompassing seismic events from multiple regions around the world.</p><p>Purpose and Applications:`

Tags ↶

earthquake × seismic activity × global seismic events × natural hazards ×

disaster preparedness × seismic risk × earthquake monitoring ×

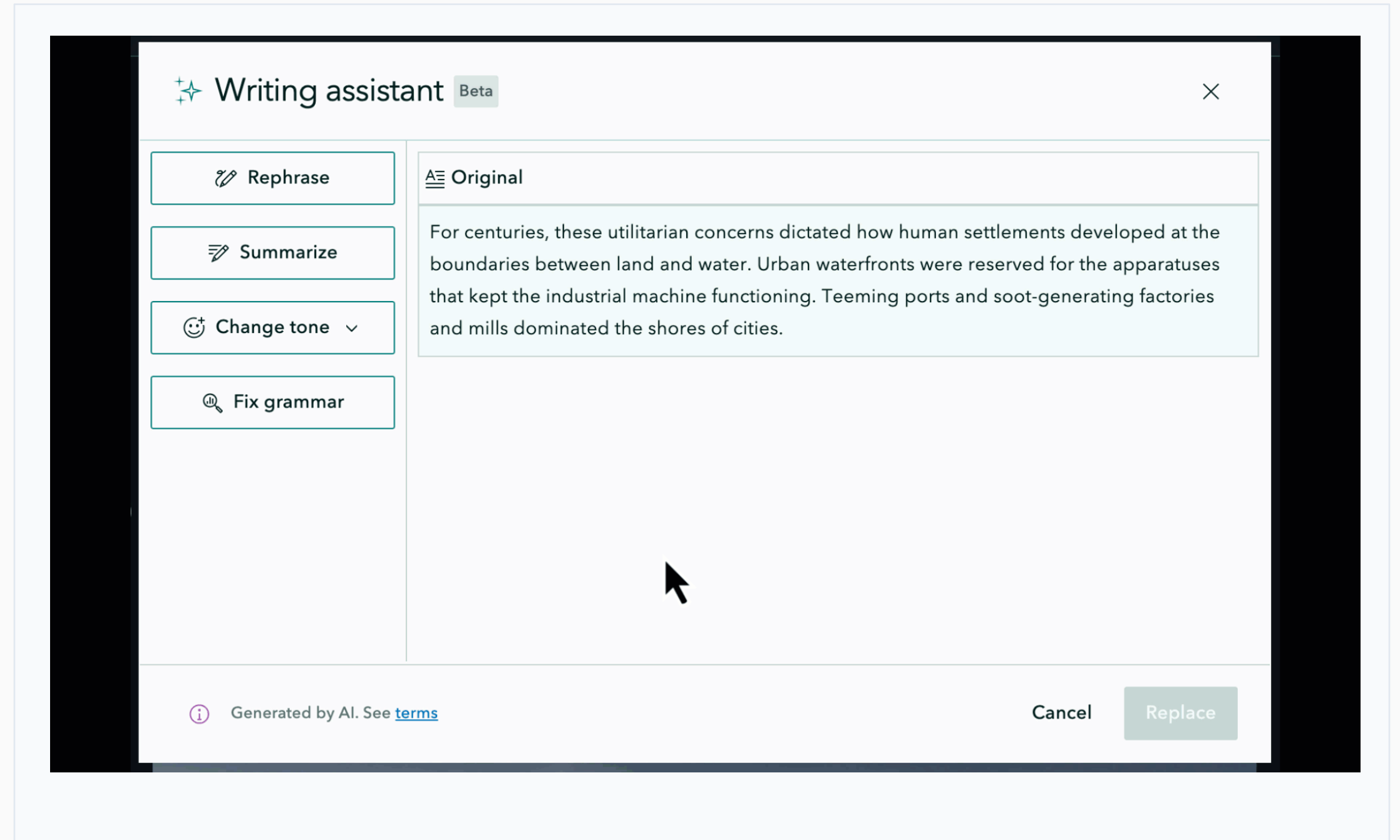
Back Cancel Save

StoryMaps Assistant.

ARCGIS STORYMAPS · IN PREVIEW

Writing refinement on selected text. Alt-text generation for accessibility. Theme suggestions from a description of the mood.

Alt-text alone is worth opening the toggle.

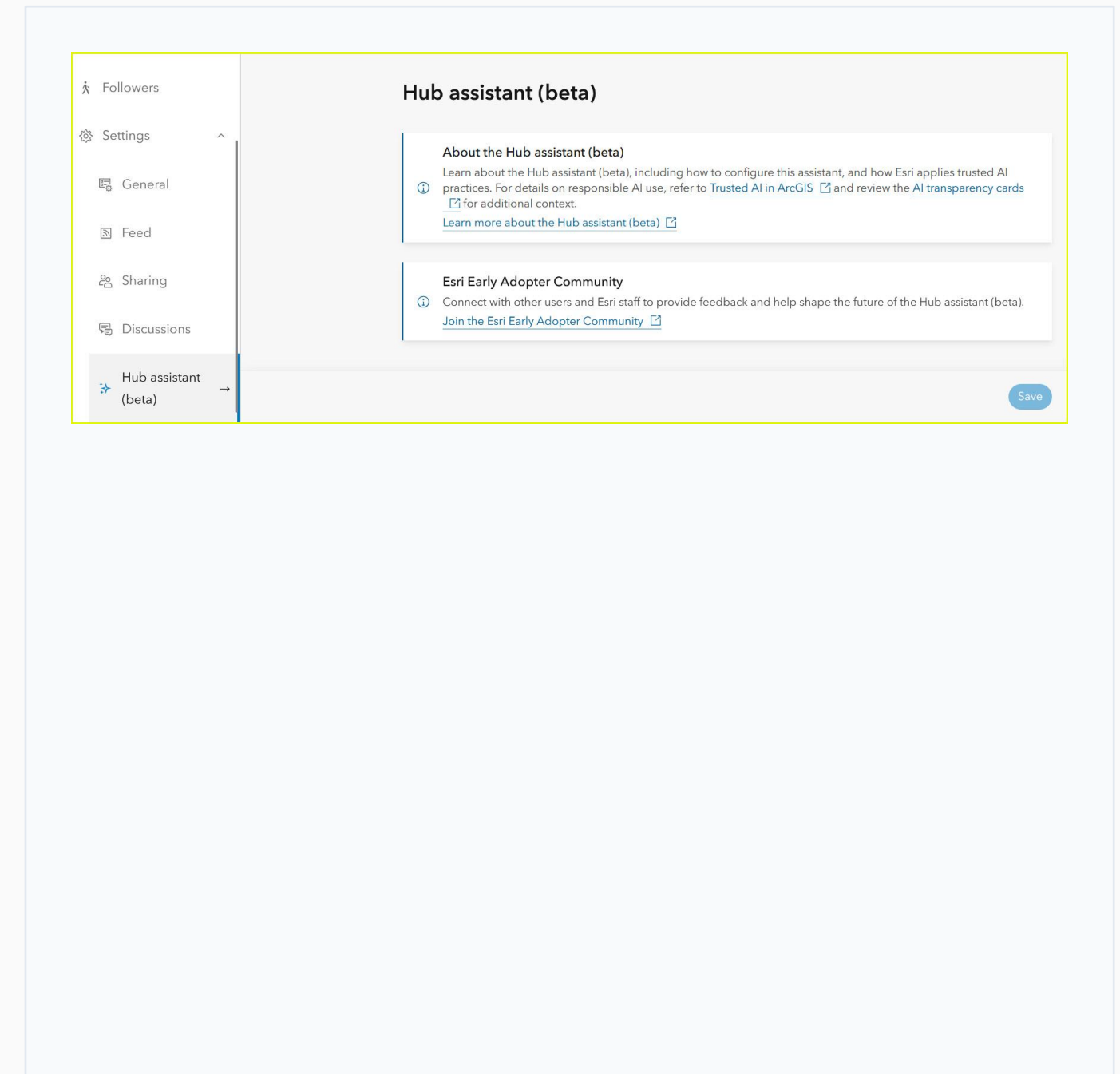


Hub Assistant.

ARCGIS HUB PREMIUM · BETA

Logged-in visitors ask your data questions in natural language. The assistant answers from the datasets you've already shared.

Hub Premium. Visitors must sign in — an AGOL account or a Hub community account. Not for anonymous public Q&A.

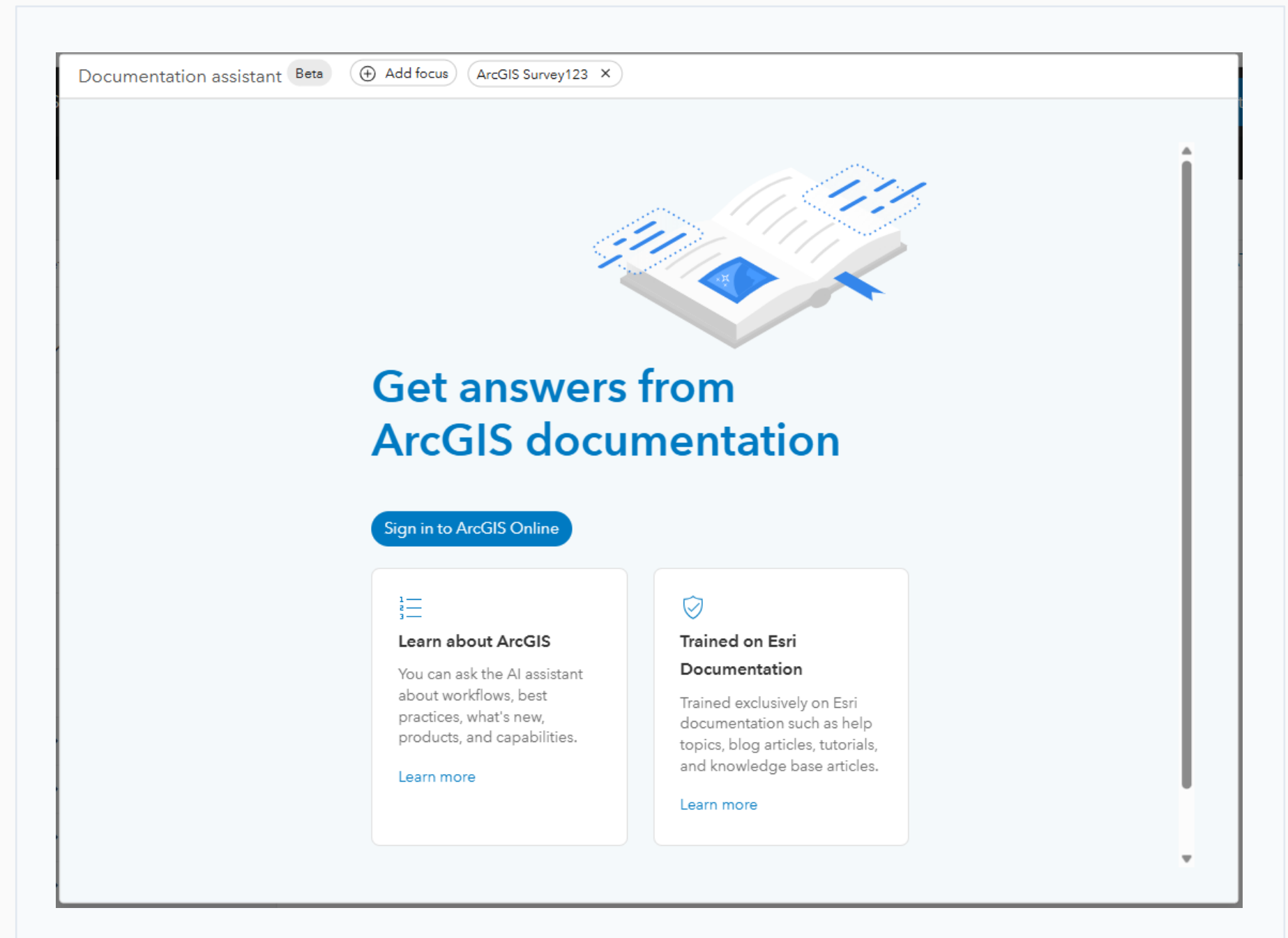


Documentation Assistant.

DOC.ARCGIS.COM · FREE, NO SIGN-IN

Ask any ArcGIS docs question, get answers cited against the actual docs. Free, public, no AGOL sign-in.

The lowest-friction one to try tonight. Replaces the 'search the help, scroll forever' loop.



Two toggles before any of these show up.

- Org → Settings → AI assistants → ON
- Settings → Security → "Block Esri apps in beta" → OFF
- Most assistants are still in beta. Both toggles, or you don't see them.
- Catches everyone the first time.

A few need an extra step beyond the toggles.

- **ArcGIS Pro Assistant** — join the Esri beta program (request via the form on the Pro Assistant page).
- **Notebooks Assistant** — same beta enrollment as Pro.
- **StoryMaps Assistant** — in preview; org admin opts in via the StoryMaps settings.
- **Hub Assistant** — Hub Premium license, then enable per-site.
- **Item Details Assistant** — AGOL today; Enterprise 12.0+ for on-prem.
- **Documentation Assistant** — nothing. Free, public, no sign-in.

SECTION 05

05

Brainstorming with AI.



Mirror the conversation.

-
- 1. You ask.** Real question, real context. Not a one-liner.
 - 2. AI researches.** Surfaces options, tradeoffs, things you didn't think of.
 - 3. You poke.** "But what about X?" Push back hard.
 - 4. AI pokes.** "Here's a wrinkle in your approach." Take it seriously.
 - 5. You decide.** The decision is yours. Always was.
-

BRAINSTORMING · A MOVE I USE OFTEN

Ask for 3 perspectives on the problem.

"Give me three takes on this — one from a skeptical reviewer, one from a county supervisor, one from someone who's never seen a map." Three drafts in 30 seconds. Pick what's useful.

BEYOND ARCADE · 01

Symbology decisions.

"Median household income by tract, public audience — suggest a ramp, a classification, and the breaks."

BEYOND ARCADE · 02

Layout critique.

Screenshot your Pro layout. Paste it in. "What's wrong with this map?" Catches hierarchy and clutter.

BEYOND ARCADE · 03

Stakeholder translation.

"Rewrite this hot-spot analysis for a board of supervisors who has never heard of spatial statistics." The one-hour edit becomes five minutes.

BRAINSTORMING · A NOTE ON WRITING

*Starting point.
Not finished
product.*

Great cure for writer's block. Bad cure for writing on your behalf. Take the draft, edit it, rewrite it, make it sound like you. People can tell when you didn't.

EXERCISE 2 · PAIRED · ~25 MIN

Pair up. Pick a sticky note. Brainstorm.

1. Pair up – try to mix experienced + new.
2. Pick one of YOUR sticky notes.
3. Walk it through the 5-step loop together with AI.
4. Capture 2–3 action items.
5. Be ready to share back to the room.

15 minutes paired, 10 minutes share-out.

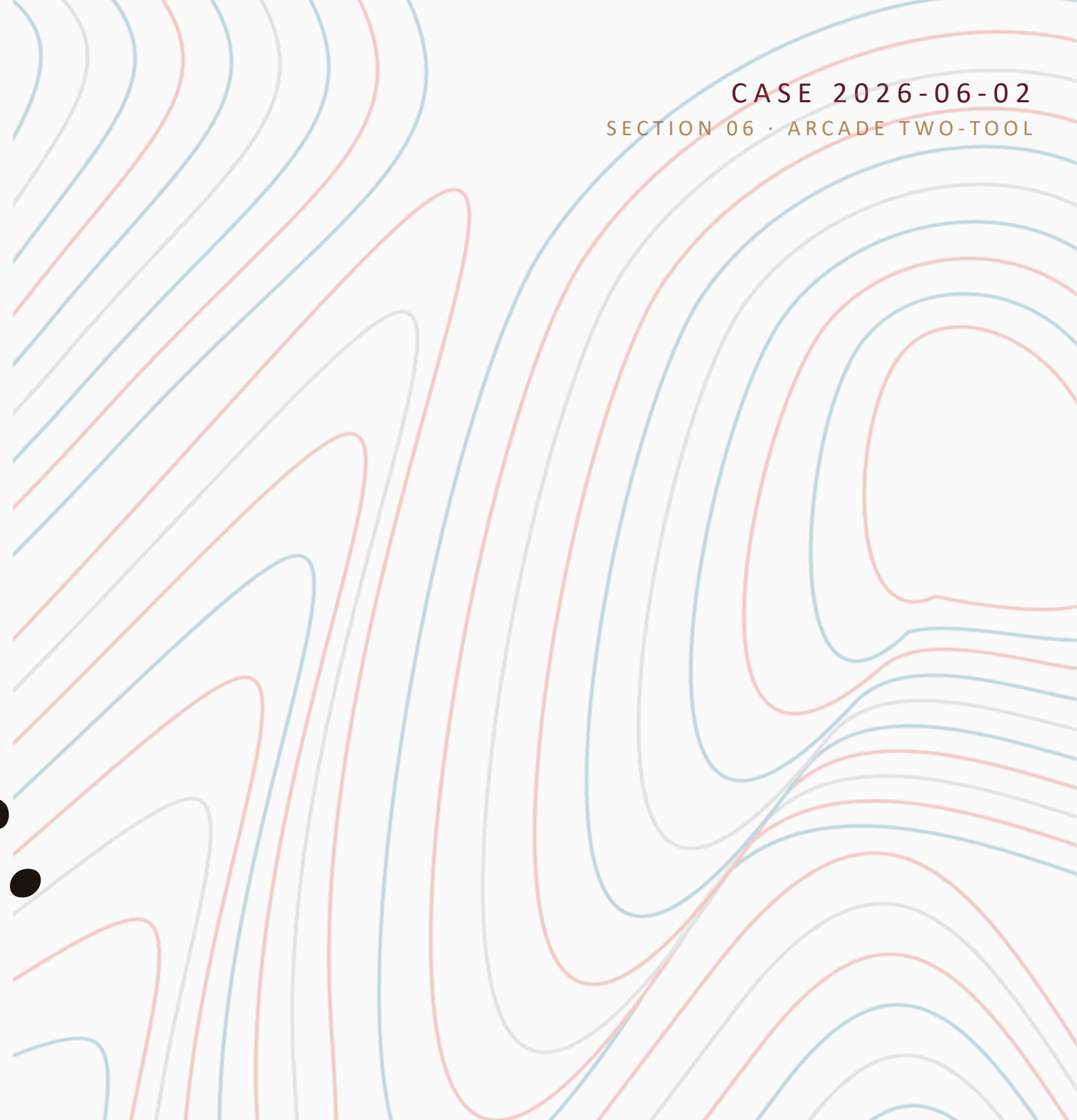
Mirror the conversation. (recap)

-
- 1. You ask.** Real question, real context. Not a one-liner.
 - 2. AI researches.** Surfaces options, tradeoffs, things you didn't think of.
 - 3. You poke.** "But what about X?" Push back hard.
 - 4. AI pokes.** "Here's a wrinkle in your approach." Take it seriously.
 - 5. You decide.** The decision is yours. Always was.
-

SECTION 06

06

Arcade, two tools.



EXERCISE 3 · HANDS-ON · ~20 MIN

Pick a tier. Run it in two tools.

EASY

Format the inspection date (DATE_OF_INSPECT_090, YYYYMM string) as "January 2026" in a popup.

MEDIUM

Conditional symbology: Good / Fair / Poor by composite of DECK_COND_058, SUPERSTRUCTURE_COND_059, SUBSTRUCTURE_COND_060.

HARD

Distance from this bridge to the nearest interstate exit in another layer.

Run it in your chatbot. Then in Arcade Assistant.

Your chatbot.

No GIS context unless you give it. May write JavaScript. May invent fields. Gets there with iteration.

Arcade Assistant.

Knows Arcade is not JavaScript. Knows your layer schema. Faster on Arcade-specific tasks.

The Arcade Assistant has GIS context baked in. Your chatbot needs you to provide it.

SECTION 07

07

*Cold cases.
When AI is wrong.*

COLD CASE · 01

Hallucinated WKID.

"Here's WKID 102718." There is no 102718. Looks like one. Isn't.

COLD CASE · 02

Made-up arcpy/Arcade.

"Use arcpy.spatial.NearestNeighbor()." That function does not exist. Sounds correct.

COLD CASE · 03

Wrong units.

Distance returned in meters when your data is in Iowa state-plane feet (EPSG:26975 / 26976).

Looks right; off by 3.28x.

*Your domain knowledge
is the quality filter.*

This is why you matter more, not less. AI scales output. You catch the WKID that doesn't exist.

WRAP · TAKE-HOME

Take-home.

- **Resources page** — is.gd/itag-w1 (or scan the QR).
- **More from dymaptic** — dymaptic.com — Free AI Discovery, GIS System Check.
- **Bridge demo code** — Workshop 2 tomorrow rebuilds this in .NET.
- **Stuck later?** — tim.purdum@dymaptic.com

CASE 2026-06-02

THE VERDICT

It was you, in Skinner C, with the right context.

Come find us at the dymaptic booth. Bring the case you can't crack — the renewal you're not sure about, the AI proposal that smells off, the GIS that grew without supervision. We'll talk it through. The first conversation is always free.

Let's Talk →

dymaptic.com

SOLVED · 06-02-2026