Frictionless Reasoning About a Resistant World

Equity questions from developing public water-data products with GenAI

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Preparation copy for ASL interpreters. Each slide is followed by its full narrative and transition. Image descriptions and supporting / review annotations are available in expandable sections. The text reproduces the supplied draft; wording and readiness have not been independently verified.

SLIDE 1 OF 19

GenAI assistance

> ON-SLIDE TEXT
>
> **GenAI assisted the preparation of this presentation. I am responsible for its claims, decisions, and final wording.**

Speaker notes

NARRATIVE

Before we get started, a quick note: I used generative AI—GenAI—to help think through, organize and draft this presentation. I'm responsible for what I share with you today. And that experience is part of the story. What happens when we bring this kind of assistance into work that other people will eventually rely on? That's the question I'd like us to explore together.

This talk does not endorse any particular model, company, or product. It's about the work of developing public-facing products with GenAI assistance, and the equity questions that arise along the way.

Every tool used to the creation of this presentation and the larger project itself have been approved by following EIS policies for responsible use of AI. I have not used any tools that are outside the scope of these policies.

I also want to akcnowledge the complex ethical and social questions that arise when we use AI tools. This is an onion for a bigger salad bar. I will focus on the questions that arose in my own work, and I hope we can discuss the broader questions together.

TRANSITION

To introduce that problem, imagine a short guide intended for public use.

▶ **Image description and source / review notes**

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A two-page guide

> ON-SLIDE TEXT
>
> **A readable draft still leaves questions about the circumstances its advice assumes.**

Speaker notes

NARRATIVE

Imagine we're putting together a two-page water-conservation guide for communities experiencing water scarcity. We ask **Bob, the chatbot** for help, and soon we have something that reads pretty well. Two pages, clear headings, sensible-looking advice. But **who** does that **advice** imagine its **readers** to be? Can they **control** their **water use**? Can they **afford** the changes? Is it in a **language and format** they can use? The draft gives us somewhere to start. Those questions give us work to do.

TRANSITION

The guide helps shape a relationship between people and the world. That brings us to mediation.

▶ **Image description and source / review notes**

SLIDE 3 OF 19

Technological mediation

> ON-SLIDE TEXT
>
> **Technologies help shape how we encounter and interpret the world.**

Speaker notes

NARRATIVE

That guide sits between people and something they're trying to understand or act on. It selects what to include, what to emphasize, and how to explain it. This is what I mean by technological mediation: technologies help shape our relationships with the world. We can start with a very simple map—human, technology, world. In this example, the technology is the guide. As we look more closely, we begin to notice the **choices inside** what first looked like a straightforward connection.

TRANSITION

Even this apparently simple relationship contains layers.

▶ **Image description and source / review notes**

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Onions and the work of scrutiny

> ON-SLIDE TEXT
>
> **Onions represent layered assumptions and conditions. Chopping represents scrutiny.**

Speaker notes

NARRATIVE

This is where I bring in the onions. At the center is the relationship as we first picture it: a person uses a guide. Around it are layers of assumptions and conditions. **They're there** whether we look at them or not. Chopping is the work of looking closely. Think of getting onions ready for a salad bar. Somebody has to do the preparation. Not everybody volunteers. And sometimes there are tears. The questions are familiar: who does the work, who gets a say, and whose idea of a better salad are we working toward? For me, the metaphor makes room for effort and discomfort—and for asking how we share that work.

TRANSITION

Now introduce the bot into developing the guide.

▶ **Image description and source / review notes**

SLIDE 5 OF 19

The bot’s generative branch

> ON-SLIDE TEXT
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> **We can question assumptions in a bot’s response without establishing, from the conversation alone, how they arose.**

Speaker notes

NARRATIVE

Let’s bring bob, the chatbot, into the picture. I’m working with it to develop the guide: asking questions, providing context, reading responses, making changes. Eventually, other people may use what we create. There’s another branch I want to draw from the bot: the generative process and the world its responses seem to assume. I call that represented world w-prime. Think of it as a question we can ask of an answer: **what would have to be true for this advice to make sense?** We can examine those assumptions. Establishing how they arose is harder. Asking the bot for an explanation gives us more words to examine; it doesn’t, on its own, establish their origin. Those vertical onions give us a particular challenge.

TRANSITION

That limited visibility matters when the conversation feels easy to carry forward.

▶ **Image description and source / review notes**

SLIDE 6 OF 19

Frictionless reasoning

> ON-SLIDE TEXT
>
> **A coherent draft can carry us forward before we examine whether its assumptions fit.**

Speaker notes

NARRATIVE

This is the tension behind frictionless reasoning. We have a coherent draft, the conversation is moving, and it's easy to feel ready for the next step. Meanwhile, questions about affordability, control or access may still be waiting for us. The onions haven't gone anywhere. We can bring some resistance into the process: check a record, ask someone with relevant experience, invite a different interpretation. Then we have choices about whose knowledge to bring in, what to question, and what to preserve. That unfolding process is what I want to share through my work.

TRANSITION

I will turn now to my work at the Oregon Water Resources Department.

▶ **Image description and source / review notes**

SLIDE 7 OF 19

My work at OWRD

> ON-SLIDE TEXT
>
> **My technical-assistance work connects people and water data for planning.**

Speaker notes

NARRATIVE

I work at the Oregon Water Resources Department, OWRD. Part of my job is helping connect people with water data for planning. I think of technical assistance as working on that connection: what can these data help people understand, and what do people need in order to use them? Technical Assistance Packages—TAPs—is the work I'll use to tell this story. We're developing packages of analysis instructions, code and draft interpretations to support place-based water planning. There's an ambitious direction here, and there are very practical questions about how we get there.

TRANSITION

The TAPs direction changes how we are trying to make that assistance available.

▶ **Image description and source / review notes**

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Connecting people to data proactively

> ON-SLIDE TEXT
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> **TAPs aims to make technical assistance available through open, reproducible products.**

Speaker notes

NARRATIVE

The direction is toward assistance that people can return to, examine and work with: moving from internal workflows toward reproducible work, and toward open, reproducible products. Reproducible means keeping the materials and steps needed to run the work again. As we develop that approach, I keep coming back to some practical questions. Who can we reach? When is the assistance available? Where does the work fall? And how does this change our connection with the people using it? Making something open is a step. Understanding what it takes for someone to use it gives us the next set of questions.

TRANSITION

That ambition involves responsibilities across the product lifecycle.

▶ **Image description and source / review notes**

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Can GenAI assist?

> ON-SLIDE TEXT
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> **The work spans planning, design, implementation, testing, launch and user engagement.**

Speaker notes

NARRATIVE

As project lead, I have a hand in planning, design, implementation, testing, launch and engagement with users. There's cross-division support, and much of the day-to-day development rests with me. So the question is very practical: can GenAI help us move this work forward with the capacity we have? It can help explore possibilities and put a strategy into words. But then I need to ask: whose working conditions does this strategy assume? Does it fit the people, time and support available here? That's where the smooth conversation starts meeting the circumstances of the project.

TRANSITION

I will walk through three touchpoints where that examination changed the work.

▶ **Image description and source / review notes**

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Three touchpoints in an ongoing process

> ON-SLIDE TEXT
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> **Planning, dataset design and implementation each introduce further equity questions.**

Speaker notes

NARRATIVE

I'll take you through three touchpoints. First, planning: developing a longer-term vision and deciding what needs to happen today. Second, design: learning how to turn water-rights records into the public dataset we have in mind. Third, implementation: organizing the evolving work through a smart folder. In each one, we try an approach to a difficulty, and another set of questions comes into view. Follow the onions as we go.

TRANSITION

Let us start with the longer-term vision—and what it asks of us today.

▶ **Image description and source / review notes**

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Planning: a longer horizon

> ON-SLIDE TEXT
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> **A long-term vision still requires choices about what to do now and whose capacity it assumes.**

Speaker notes

NARRATIVE

I wanted a longer-term vision: open data, work that people could run again, and eventually possibilities such as containerization. That means packaging software with its operating environment to help run it in a specified way. Then comes the question that brings a vision back to the desk: what do we need to do today? GenAI helped me explore that. Some plans also assumed data architects, dedicated IT support or established processes beyond my working setup. I kept bringing the conversation back to our circumstances. That was already resistance: asking the plan to meet the setting where we would actually have to carry it out.

TRANSITION

Repeated conversations then raised a different problem: how to follow the reasoning across them.

▶ **Image description and source / review notes**

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Planning: bringing reasoning into a record

> ON-SLIDE TEXT
>
> **A durable record addressed tracing difficulties while creating selection decisions and documentation burden.**

Speaker notes

NARRATIVE

As the conversations accumulated, I started losing the thread. Which assumption came from which chat? What had we changed, and why? Sometimes a conversation would reach its limit while we were still working through something. I began moving selected reasoning into a durable record—files we could return to beyond an individual chat. That brought decisions into view: what deserves to stay, where does it go, and how do I explain it? Soon I also had a lot of documentation to look after. I was trying to build products, and keeping the record could become a job of its own. Preserving the reasoning gave me another set of onions to chop.

TRANSITION

The design example shows why preserving a particular change in understanding can matter.

▶ **Image description and source / review notes**

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WRIS: revising our understanding

> **ON-SLIDE TEXT**
>
> **Learning sessions changed what I thought the records could provide directly.**

Speaker notes

NARRATIVE

The Water Rights Information System, WRIS, gave me a concrete encounter with changing understanding. I initially expected information we could retrieve more directly. We had metadata listing variables that weren't readily available through the records in the way I had pictured. Through learning sessions, I came to understand a historical family of connected records that needed careful translation. Imagine answering the latest email in a long thread. The answer depends on an attachment, which sends you to an older file, which points somewhere else. Suddenly, answering that top email takes more context than you expected. Colleagues helped me understand those connections. Some are approaching retirement, which adds urgency to the question of how that knowledge carries forward.

TRANSITION

That learning changed what our specifications needed to explain.

▶ **Image description and source / review notes**

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WRIS: preserving the translation decisions

> ON-SLIDE TEXT
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> **GenAI helped document our evolving understanding and the decisions shaping revised specifications.**

Speaker notes

NARRATIVE

Those conversations with colleagues changed how I understood the records. I used GenAI to help follow that change and put it into words we could return to, including the comparison diagram. Our query specifications became more comprehensive and explicit about the steps toward the spatial dataset we want to offer publicly. I also moved toward folders organized around particular products, to keep documentation more focused. Now there's another opportunity: share some of that developing understanding alongside the data, so people can examine the decisions shaping it. And another question: who gets to challenge that interpretation, and how? That includes our team and, eventually, the communities we hope will use the work.

TRANSITION

How do we give that evolving record somewhere to live, and a way for others to work with it?

▶ **Image description and source / review notes**

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Implementation: a smart folder

> ON-SLIDE TEXT
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> **The smart folder connects GenAI assistance with a durable record—and opens questions about access and participation.**

Speaker notes

NARRATIVE

The smart folder is one way I'm working on that connection. It's a project folder with the work itself, instructions, sources, selected discussions, current understanding and decisions, linked together. This presentation project uses that structure. It gives GenAI assistance an interface with a record we can keep working on. Putting that record in a repository opens a possibility: other people could follow how assistance influenced development, and collaborators could keep accounts of their own assisted work. Then I have to ask: who can really get in? Who am I writing for? What skills and time do they need? An available repository gives us somewhere to begin those questions.

TRANSITION

Making it available raises a further question: does participation require AI?

▶ **Image description and source / review notes**

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AI-assisted, not AI-dependent

> ON-SLIDE TEXT
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> **People should be able to read, question and maintain the record without GenAI.**

Speaker notes

NARRATIVE

The principle is AI-assisted, not AI-dependent. People should be able to read, question and maintain the record without needing a model. We're working with ordinary editable files, with instructions alongside them for assisted work. I'd also like that structure to travel across models, and perhaps eventually help us provide project context to a local language model. Another direction is a website that makes the record easier to navigate. Each of those choices asks something of the people using it. What do we expect them to know? What should be easy to find? How would they add a question or challenge an interpretation? The interface is another part of the equity work.

TRANSITION

These approaches bring us back to the work of chopping.

▶ **Image description and source / review notes**

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How many onions are you willing to chop?

> ON-SLIDE TEXT
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> **Scrutiny takes work. Who has the time, knowledge, access and authority to participate?**

Speaker notes

NARRATIVE

So, how many onions are you willing to chop? And perhaps more importantly: how much time, support and room do you have to do it? Across these examples, we've met assumptions about capacity, choices about what to document, changing interpretations of records, and questions about who can access the result. Even asking a team to review a draft leaves another question: can they see how it was generated and how their feedback shaped the next version? Participation can enter all along the way. Sharing that work means making room for people to question how the product is taking shape.

TRANSITION

Our project-level relationships also sit within larger systems.

▶ **Image description and source / review notes**

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Our work within larger systems

> ON-SLIDE TEXT
>
> **Our project decisions sit within larger systems of power and influence.**

Speaker notes

NARRATIVE

Before closing, I want to acknowledge the larger picture. Our work sits within much larger systems of power and influence. People bring concerns about AI infrastructure, companies, public institutions and environmental consequences into these conversations. Those concerns deserve space. Today I've stayed close to decisions I encounter while developing a public-facing product. I'd like us to hold those scales together: keep the wider concerns in view while asking where we can act, question and change practice within our own organizations. For our discussion, how might those broader concerns connect to the choices we've been walking through?

TRANSITION

Let me bring that back to the work we can keep doing together.

▶ **Image description and source / review notes**

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Conclusion: keeping equity questions open

> ON-SLIDE TEXT
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> **Each approach opens further equity questions. Productive resistance keeps them visible and open to participation as the work evolves.**

Speaker notes

NARRATIVE

What I hope this story leaves with you is a sense of the work continuing. I tried to preserve reasoning, and found questions about selection and burden. We documented a changing interpretation, and met questions about who could challenge it. We organized a repository, and opened questions about access and skills. Much of this has been a solo effort, and I want to find ways to bring others further into it. Productive resistance means keeping opportunities to question, learn and reconsider alive as we go. What makes that resistance productive is something we need to work out together, in the circumstances of each project. There will be more onions. The question is how we make room to chop them together.

TRANSITION

Thank you. I look forward to continuing these questions in the shared Q&A at the end of the presentation cycle.

▶ **Image description and source / review notes**