



# Increasing AI Literacy for RD Professionals

*You Already Know Enough to Start — And Starting Has Never Been  
More Urgent*

## **Aimee Oke**

Associate Director of Research, CVMBS  
Colorado State University  
[aimeeoke.ai](https://aimeeoke.ai)



# The Reality We All Know — Plus a New One

*We're expected to be grant editors and budget analysts and project managers and mentors... and somehow still move the needle on funded research. It's overwhelming.*

## Death by 1,000 Cuts

Version control nightmares, cat-herding collaborators, formatting data tables

## More Hats, Fewer Hands

Reduced FTEs, expanded scopes, working nights and weekends

## No Space to Innovate



Cognitive burden from repetitive work kills creative capacity

## The Ground Is Moving



Tools and expectations changing faster than the workload lets you look up



# The Pivot — And Then Another One



## The Breaking Point

Three training grants due simultaneously.  
Left town to recover. Started listening to AI  
podcasts during the drive.



## The Book

Ethan Mollick's Co-Intelligence made it click:  
this isn't a tech trend. This is going to shift  
everything.



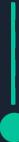
## The \$20 Decision

The university wasn't going to cover it.  
I paid for a ChatGPT subscription myself.  
"What's \$20/month to get rid of the drudgery?"



## The Shift

Stopped using AI as an answer engine.  
Started thinking: where does this live in  
my actual workflow?



## The Acceleration

Within a year, I went from pasting documents into ChatGPT to running a personal AI agent  
across multiple models. The tools kept getting more capable, faster than I could update my  
assumptions.



# What Changed in the Last Month

## 1 Autonomous AI Work

In Jan 2025, AI coded autonomously for ~30 min. By Feb 2026, AI agents coded for two straight weeks and delivered a working C compiler — 100,000 lines of code.

## 2 The \$285B Wake-Up Call

A 200-line text file — AI workflow templates from Anthropic — triggered \$285 billion in stock losses in 48 hours. Wall Street priced in what practitioners already knew.

## 3 Non-Technical People Building Software

Two reporters with no coding background built a working project management app in under an hour. Total cost: ~\$10. This category didn't exist six months ago.

## 4 AI In Your Tools Right Now

AI is embedded inside Excel and PowerPoint. Norway's sovereign wealth fund reported 213,000 hours saved. Goldman Sachs deploys AI across compliance — in production.



# You don't need to be an AI expert. You need to be a domain expert who can delegate.

AI is making execution cheap. What's becoming exponentially more valuable is **judgment**: knowing what good output looks like, knowing which question to ask, recognizing when something is technically correct but strategically wrong. The new skill isn't "learning AI." It's learning to delegate your expertise through AI.

---



# The New Mental Model: Delegation, Not Prompting

*Three variables that determine when to delegate to AI*

## Human Baseline Time

How long the task takes you — *Reading a 40-page NOFO: ~2-3 hours*

## AI Process Time

Time to request + wait + evaluate — *Pasting NOFO + reviewing summary: ~15 min*

## Probability of Success

How likely AI produces acceptable output — *Structured extraction: high. Nuanced strategy: lower*

**If the task takes hours and AI produces a draft you can evaluate in minutes — delegate.**

Improve the equation: **Better instructions** → higher probability | **Better evaluation** → fewer cycles | **Faster evaluation** → lower time  
*All three are improved by subject matter expertise. That's your edge.*

# Bolting On vs. Rebuilding

## Bolting On

*Using AI to speed up your existing process*

- Paste a NOFO into ChatGPT, get a summary faster
- Use AI to draft an email you would have written anyway
- Ask AI to proofread a document

Feels productive. Saves some time. But your workflow is fundamentally unchanged.



## Rebuilding

*Rethinking the workflow from scratch with AI as a partner*

- How would I design my NOFO review process if AI handled 70% of extraction?
- What if I could run competitive landscape analysis in 20 minutes?
- What if I could build custom tools for each PI's specific needs?

**Changes what's possible. Changes your role.**

Most people start by bolting on. That's fine — it's how you learn.  
**But the real value comes from rebuilding.**



# The Four Skills That Thrive

## Taste

The instinct for whether something is right — not by checklist, but by hard-won experience.

*RD: You read a draft specific aims page and know in 30 seconds if it will land with reviewers.*

## Domain Judgment

Specific, contextual understanding of how your domain works. Knowledge that isn't in any training set.

*RD: You know which program officers align with your strengths and which faculty partnerships will survive.*

## Phenomenal Ramp

The ability to learn fast when everything is evolving. Using tools daily, updating your mental model weekly.

*RD: The tool you learn this month may be replaced in three. The skill of rapidly adapting compounds.*

## Relentless Honesty

Looking at your own work and asking: which parts require my judgment, and which could AI handle?

*RD: If you spend 10 hrs/week on tasks AI handles in minutes, your time allocation doesn't match value.*

# Learning to See the Shape of Problems

*Like “parkour vision” — trained ability to see problems as shapes that technology can solve*

I NOTICE THIS...	IT'S SHAPED LIKE...	SO I REACH FOR...
I keep doing this repetitive thing	<b>Quick automation</b>	→ A chat conversation
I need this analysis done the same way every time	<b>Reusable tool</b>	→ Custom GPT or saved prompt
I need to work with data in a structured way	<b>Spreadsheet problem</b>	→ Claude in Excel / AI-assisted analysis
I need something that doesn't exist	<b>Vibe-code project</b>	→ Builder platform with a clear spec
Complex, multi-step, reliable over time	<b>Engineering problem</b>	→ PRD + structured build process
This task should run itself	<b>Agent problem</b>	→ Defined agent with boundaries

*Developing the instinct for what shape a problem is — that's the new literacy.*



# Where Are You Right Now?

Based on the self-assessment you completed before today:

**15–35**

**Early Explorer**

Curious, but AI isn't part of your daily rhythm yet.

YOUR GOAL

**YOUR GOAL**

*Get one delegation win this month*

**36–55**

**Emerging Practitioner**

Using AI in pockets, starting to see real value.

YOUR GOAL

**YOUR GOAL**

*Start rebuilding one workflow*

**56–75**

**AI-Forward Operator**

AI is amplifying your capacity. Thinking strategically.

YOUR GOAL

**YOUR GOAL**

*Build the adaptation habit*

# Start Here. But Know Where This Goes.

*Where Early Explorers begin*

## The Entry Point

**Before:** Read 40-page NOFO manually. Extract eligibility, deadlines, budget caps. ~2-3 hours.

**After:** Paste NOFO into analyzer. Review AI summary. Send to faculty with your edits. ~15 minutes.

*This is real. This works today. Start here.*

**~2-3 hours per NOFO**



## Where This Is Going

What if your AI could:

- Monitor new funding opportunities automatically
- Cross-reference against faculty profiles
- Flag high-probability matches with briefs
- All before you get to your desk Monday morning

*This isn't science fiction. People are building this now.*

**~15 minutes per NOFO**



# When Execution Is Free, Judgment Becomes Priceless

AI **cannot** know that Dr. Chen's lab has unpublished preliminary data that makes a weak proposal strong. It **cannot** recognize two co-PIs have a history that makes their "collaboration plan" fiction. That knowledge lives in **you**.



# What's Actually Stopping You?

Let's talk about what's actually stopping you.

**Budget constraints?** Free tools work for experimenting. \$20/month unlocks the real capability.

**Institutional resistance?** Start with your own work. Build proof. The best argument for AI adoption is showing what you accomplished.

**Hallucination fears?** Valid concern. This is exactly why domain expertise matters — you can catch errors a non-expert would miss.

**"It's moving too fast"?** This is the most expensive decision you can make. There is no settled state coming. Adapt continuously.

**Not sure where to start?** You already started. You're here. You did the self-assessment. Now go try one task this week.

**Feeling like you're already behind?** You're not. The vast majority haven't started at all. Being here puts you ahead.



# Your Turn

## Define Your First AI Delegation

- 1 What's one task you do regularly where you already know what "done well" looks like?
- 2 If you gave this to a capable new hire, what instructions would you give?
- 3 If you redesigned the whole workflow with an AI partner, what would you build?

*8 minutes on your own • 5 minutes with a partner • Then we'll share*



# Your Monday Morning Move — And Every Monday After



Pick the task from your worksheet. Try delegating it to any AI tool. Evaluate like a new hire's work.



**Start This Week**



One hour per week with AI on real work. Not reading about it. Using it. Compound learning is extraordinary.



Monthly check: “Is there a better way to do this now?” The tools change every few months. Build in adaptation.

*The people who will be furthest ahead in six months aren't the most technical. They're the ones who started now and didn't stop.*



# Keep Going



## **aimeeoke.ai**

Open-access frameworks, tools, and guides built for research professionals.



## **Understanding LLMs: A Visual Guide**

An illustrated walkthrough of how large language models actually work.



## **AI-Readiness Self-Assessment**

The tool you used before today. Revisit in 30 days and track your growth.



## **Co-Intelligence by Ethan Mollick**

The book that started my journey. Still the best starting point.

## **"Management as AI Superpower"**

The article that reframes AI as a delegation skill, not a technical skill. Read this week.

## **The \$20 Starting Point**

Claude Pro or Gemini Pro or ChatGPT Plus. \$20/month. Use the best model. Change when better ones arrive.