



# AI and Research Productivity: Best Practices & Possibilities

*Shining a light on integrated care to promote mastery  
and unlock human potential.*



\*Dawson, A. L. (2025, May 30).

**Alice Dawson**, Senior Project Coordinator at Chestnut Health Systems, recently led a workshop titled *“AI & Research Productivity: Best Practices & Possibilities,”* aimed at

equipping research professionals with the skills to use generative AI tools effectively and responsibly\*.

The session focused on establishing practical foundations for integrating AI into research workflows. Still a relatively new area, a pre-workshop survey circulated by Dawson showed that over two-thirds of respondents were either unfamiliar or only slightly familiar with AI tools such as chatbots or large language models.



In response, the workshop prioritized core competencies, helping attendees understand how to apply AI in ways that enhance productivity while upholding data privacy and research integrity. For those in a similar position, trying to dip their toe into the pool of AI possibilities, the following summary of the content presented may be helpful.

### **A New Language for a New Colleague**

The early portion of the session laid down the basics—what generative AI is, how it differs from traditional automation, and what it can do:

- Summarize texts (when used correctly)
- Brainstorm with you
- Provide iterative feedback
- Assist in technical writing and writing instructions

- Teach you *how to* do tasks
- Training Simulations
- Help write tailored texts
- Create Templates
- Data Visualization/Analysis Support
- Create fillable PDFs, Excel tables, and documents
- Streamline literature reviews...and more.
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The workshop also surveyed the kinds of tools that are available to researchers today, but Dawson was primarily focused on *process*. She framed AI as a collaborator whose performance is only as good as the instructions it receives. This was where her emphasis on prompt development came in. Participants were introduced to the distinction between **prompt crafting**—a trial-and-error back-and-forth to arrive at a usable output—and **prompt engineering**, a more structured approach aimed at generating high-quality responses on the first try.

### **CRISPy: The Anatomy of an Effective Prompt**

At the heart of Dawson’s workshop was a deceptively simple framework for writing effective prompts: the **CRISPy** model. CRISPy offers a reliable way to produce consistent, context-appropriate outputs from generative AI systems. Each letter corresponds to a key element of prompt construction:

- **C — Context:** Set the scene. Who is the audience? What is the goal? What’s the broader use case?
- **R — Role:** Assign the AI a persona. Is it a scientific writer? A communications officer? A research operations consultant?
- **I — Instructions:** Be explicit about what you want the AI to do—summarize, compare, rewrite, draft, etc.
- **S — Specifics:** Provide formatting guidance, length limits, examples, or any structural cues.
- **P — Purpose:** Clarify why you're doing this. Is the output a draft, a final document, or a table for internal review?

- **y — You:** Always remember the human role—AI is a tool, not a decision-maker. Outputs require oversight, editing, and judgment.

Dawson emphasized that while the order can be flexible, context and role should almost always come first. These two components orient the AI and establish the scenario before issuing the specific task. Once the logic of CRISPy was in place, the rest of the workshop focused on applying it to real, research-specific use cases.

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## **From Memo Drafting to Study Management: Three Walkthroughs**

Dawson presented three detailed walkthroughs, each demonstrating how structured prompting could accelerate common research tasks.

### **1. Drafting an Institute-Wide Memo**

In this example, the user needed a draft email announcing an optional AI training session for staff. The CRISPy prompt included the context (an internal memo), the role (a professional communications writer), clear instructions (what to include), and constraints (keep under 250 words, use placeholders for links and Zoom invites). The AI produced a polished, ready-to-edit message tailored for institutional audiences, saving time without sacrificing tone or clarity.

### **2. Comparing Project Management Tools for Federally Funded Studies**

The second walkthrough addressed the evaluation of project management software for a complex research portfolio, including a P30, a K-award, and two R01 studies. The prompt asked the AI to act as a research operations consultant and deliver a side-by-side comparison of 5–7 tools with an emphasis on nonprofit pricing, NIH compliance, and collaborative features. The resulting output was a clear, structured table—ready to be incorporated into a proposal or shared with a research operations team.

### **3. Deidentifying and Simplifying Consent Forms**

The most nuanced walkthrough addressed an ethical and logistical challenge: simplifying a

consent form for incarcerated youth to a 7th-grade reading level while maintaining accuracy and deidentification. The prompt instructed the AI to act as an expert linguist and scientific writer, analyzing a consent form (with placeholders for all identifying information) and returning a bulleted list of overly complex sections. The AI correctly flagged jargon, sentence length, and passive constructions that elevated the readability score.

This use case underscored the need for expert oversight: even with deidentification in place, any AI-influenced draft must be reviewed by human eyes, especially when working with vulnerable populations or compliance-sensitive materials.

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### **Beyond Productivity: A Framework for Responsible Use**

While the focus was on saving time and enhancing workflows, Dawson emphasized transparency and restraint. AI is not a replacement for human expertise, but an accelerator. It should also be understood that the more powerful the tool, the more intentional its use must be. Researchers were urged to always check outputs for accuracy, to never enter identifiable or sensitive data into public systems, and to use generative AI selectively, especially in regulated contexts.

Moreover, participants were reminded that the same deep learning systems underpinning research tools are also embedded in consumer platforms like social media and video recommendation engines. The outputs of these models shape what users see, believe, and do, and researchers must understand that influence as part of the broader AI landscape. The session also emphasized being familiar with the settings for any AI tool being used, especially how to opt out of data sharing.

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### **A Call to Engage**

The workshop closed with a challenge: researchers must not only learn to use AI—they must shape how it's used. As the field evolves, so too must institutional policies, ethical standards, and

professional norms. And it won't be enough to know how to craft the perfect prompt; researchers must ask where those prompts lead, and why.

Beyond teaching attendees how to use AI tools, the workshop asked them to think harder about the kind of research future they want to help build. With CRISPy in hand and a strong ethical compass, they left not only more capable but also more accountable.

\*Dawson, A. L. (2025, May 30). *AI & research productivity: Best practices & possibilities* [Online workshop]. Chestnut Health Systems.