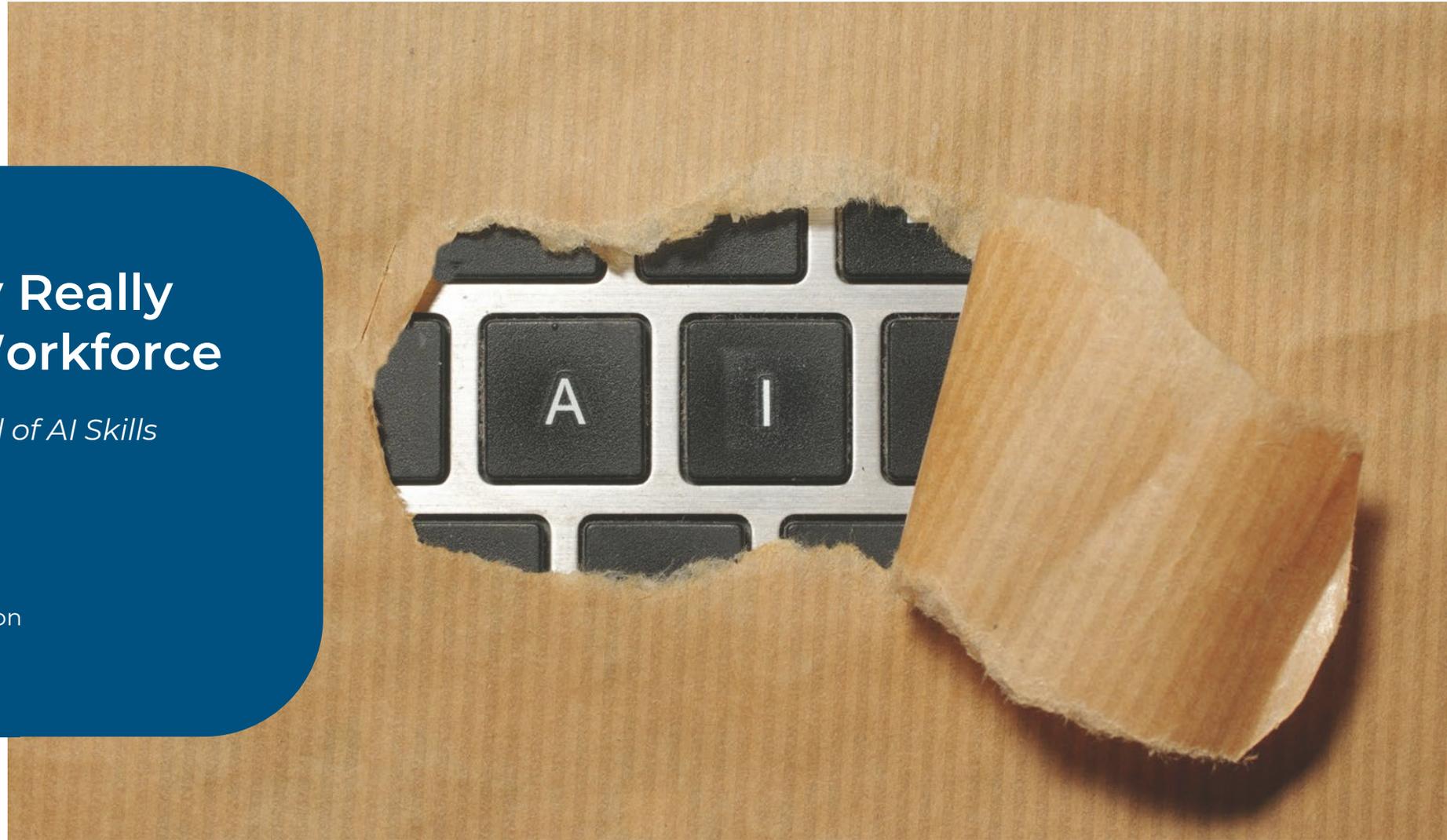# What AI Proficiency Really Means to Today's Workforce

Inside the Emerging Mental Model of AI Skills

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Before defining AI skills, it's important to address a question many users struggle to articulate...

What exactly are AI skills in today's workplace?

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Is it simply about prompt writing, or does it involve deeper abilities like critical thinking?

If it's only critical thinking, do AI skills actually exist...?

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To explore this, **DeriveOne** conducted a <mark>multi-phase study</mark> combining qualitative and quantitative methods.

Objectives & Methodology

Objectives

- To understand **how everyday AI users define "AI skills" and "AI proficiency,"** including but not limited to non-technical business and professional users who rely on AI in the flow of everyday work to perform role-relevant tasks.

- To identify and organize the **key skills these end-users mention as indicators of proficiency**, focusing on the abilities they consider important for effective day-to-day use of AI at work.

Methodology

Phase 1 Qualitative

- One-on-one in-depth interviews, 60min per interview (n=6).
  - L&D Leaders (n=3).
  - Self-assessed AI Experts (n=3).
- Unmoderated sessions, 30min per session (n=20).
  - Power Users (n=10).
  - Light Users (n=10).

Methodology

Phase 2 Quantitative

- Total sample size: n=201
  - US n=101
  - International n=100)
- Survey LOI: ~7min

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Experimentation and curiosity, the mindset behind growing AI proficiency

Our qualitative study revealed that AI proficiency is considered to be a result of practice, curiosity, and trying new AI tools and new uses for AI. Self-described "AI experts" highlighted experimentation and self-learning as key enablers of their own proficiency.

- For some panelists, **becoming proficient means learning through exploration** rather than formal training.
- Panelists associate this mindset with:

  ❖ Trying new features

  ❖ Learning through iteration

  ❖ Improving prompts over time

  ❖ Being curious about new possibilities

  ❖ Expanding use cases through practice

In our quantitative study, we found that broad, hands-on use of AI tools is moderately associated with higher confidence in AI proficiency—more so than formal training.

Curiosity and experimentation form the developmental pathway to proficiency, the mechanism through which users expand both control and range.

- ✓ **Implications for leaders:** Programs that reward exploration – not just course completion – will accelerate AI skill growth more effectively than traditional training structures

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Phase 1: Qualitative

Inside the conversation on AI skills with real users

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AI supports task-level work rather than a transformation of how work is structured

AI adoption centers on a small set of general-purpose AI tools: Panelists rely on a small set of mainstream, general-purpose AI tools. Their usage seems limited in depth and does not reflect broad exploration of the AI ecosystem.

The most frequently used application is ChatGPT (15 panelists), followed by Google Gemini (9) and Microsoft Copilot (8).

Nine panelists use only one AI tool, while eleven use two to four tools, showing a clear split in usage patterns. Even among multi-tool users, the range is small and does not indicate broad or experimental adoption.

AI is accessed mostly where it is already embedded in everyday work: Accessibility and convenience influence where AI is used, which reinforces task-level support rather than deeper changes in how work is structured.

Most panelists access AI through integrated tools, particularly within Microsoft (n=9) and Google (n=4) applications . Some panelists use AI tools entirely standalone (n=6).

While integrated use is common, standalone use remains significant and reflects a behavioral pattern where AI is treated as an external helper rather than a built-in workflow component.

What this means for organizations: AI adoption grows fastest when aligned to existing workflows. Embedding AI into familiar tools may unlock broader, more sustained use than introducing standalone solutions.

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AI supports communication and information tasks more than any other type of work

AI use is dominated by everyday communication tasks. Writing, editing, summarizing, and tone adjustments account for far more mentions than any other category, which suggests that, **at this stage, AI plays a supportive role rather than driving new or advanced workflows** for everyday users in their workspace.

Use Case Categories:

- **Communication and Content Creation (43):** Writing, editing, summarizing, translating, and adjusting tone or style.

- **Research and Analysis (26):** Searching for information, synthesizing content, brainstorming ideas, and working with data.

- **Operational Productivity and Workplace Support (12):** Meeting notes, presentation materials, general support questions, and similar tasks.

- **Software Development and Technical Creation (8):** Code generation, debugging, documentation, and UI prototyping.

- **Creative Generation (3):** Producing or editing images or other visual content.

Implication: Communication-heavy roles—operations, customer support, marketing, and project management—present the strongest near-term opportunities for measurable AI productivity gains.

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Panelists describe AI proficiency as a combination of practical skills and an experimentation mindset

Proficiency is defined by how well someone can shape the interaction with AI tools, apply AI across relevant tasks, judge and refine outputs, and understand when and why to use AI. Underneath these abilities sits a broader belief: people become skilled with AI by practicing, experimenting, and learning through use, rather than by following formal instruction.

Experimentation Mindset: Curiosity and a growth-oriented attitude toward learning how to use AI better over time. This includes trying new features, learning by doing, expanding use cases, and iteratively improving prompts and methods. For many panelists, this mindset is the mechanism through which proficiency develops, and self-described "AI experts" highlighted experimentation and self-learning as key enablers of their own proficiency.

Prompting: The ability to craft clear, specific, and well-structured inputs that guide AI toward relevant results. This includes planning prompts, providing context, iterating based on feedback, and applying job-domain knowledge and analytical thinking to frame the request effectively.

Prompting was the most frequently mentioned skill and the clearest indicator of perceived proficiency. For panelists, prompting is about structured thinking so the AI can follow it.

Comprehensive Use: The ability to use AI broadly and meaningfully across tasks and workflows, not just for isolated or simple tasks. This includes knowing when AI is appropriate, integrating it naturally into work, and applying it to tasks that have complexity or relevance.

Panelists consistently linked proficiency with using AI widely and appropriately across different kinds of work. They contrasted "skilled" users with those who only use AI for narrow or superficial tasks.

Understanding AI Capabilities: Awareness of what AI tools can and cannot do: their boundaries, ideal use cases, and limitations. It involves choosing the right tool and recognizing when human judgment is required.

Panelists see understanding AI's capabilities and limitations as a meaningful indicator of proficiency, but always in combination with other skills. It underpins good prompting, good task selection, and good judgment, but is rarely articulated on its own.

Evaluating Outputs: The ability to critically review and adapt AI-generated content for accuracy, tone, and appropriateness. It includes checking if results are usable, professionally suitable, and aligned with the task.

Only a few panelists explicitly mentioned reviewing or editing AI outputs, this suggests that many users may implicitly trust the outputs more than they realize, or that evaluation is "invisible" to them as a skill. Self-described "AI experts" were more likely to mention evaluation.

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Everyday users define AI proficiency through practical skills and leave out oversight and responsible use

The core skills named by panelists closely match those emphasized across formal AI skills frameworks[1]. However, they leave out areas that most of these frameworks consistently treat as essential. **Panelists focus on skills that help them get work done, not on skills related to oversight** (checking for bias, privacy risks, or misuse)**, ethics, or responsible use.**.

Strong alignment (**shared by panel & frameworks**):

- Prompting & instruction design
- Breadth & meaningful use across tasks (Comprehensive Use / Workflow Application)
- Critical evaluation of AI outputs
- Understanding AI's capabilities & limits
- Iterative, experimentation-driven learning

Skills that appear in frameworks **but not observed in panelist definitions**:

- Ethics, bias, and responsible use
- Data literacy and data handling
- Delegation to agents and oversight of autonomous workflows
- Collaboration and stakeholder alignment

- **Panelists define AI proficiency in highly instrumental terms**, centered on how to get **useful results from AI.**
- **External frameworks outline additional skills,** such as responsibility, data fluency, and governance.
- ➢ This gap highlights where workplace training and enablement are still needed.

1. _UK Government: AI Skills for the UK Workforce_; _BPP: Generative AI Skills Competency Framework for Professionals_; _Alan Turing Institute: AI Skills for Business_; _Anthropic: AI Fluency Framework_.

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Phase 2: Quantitative

The <mark>numbers</mark> add clarity to the story...
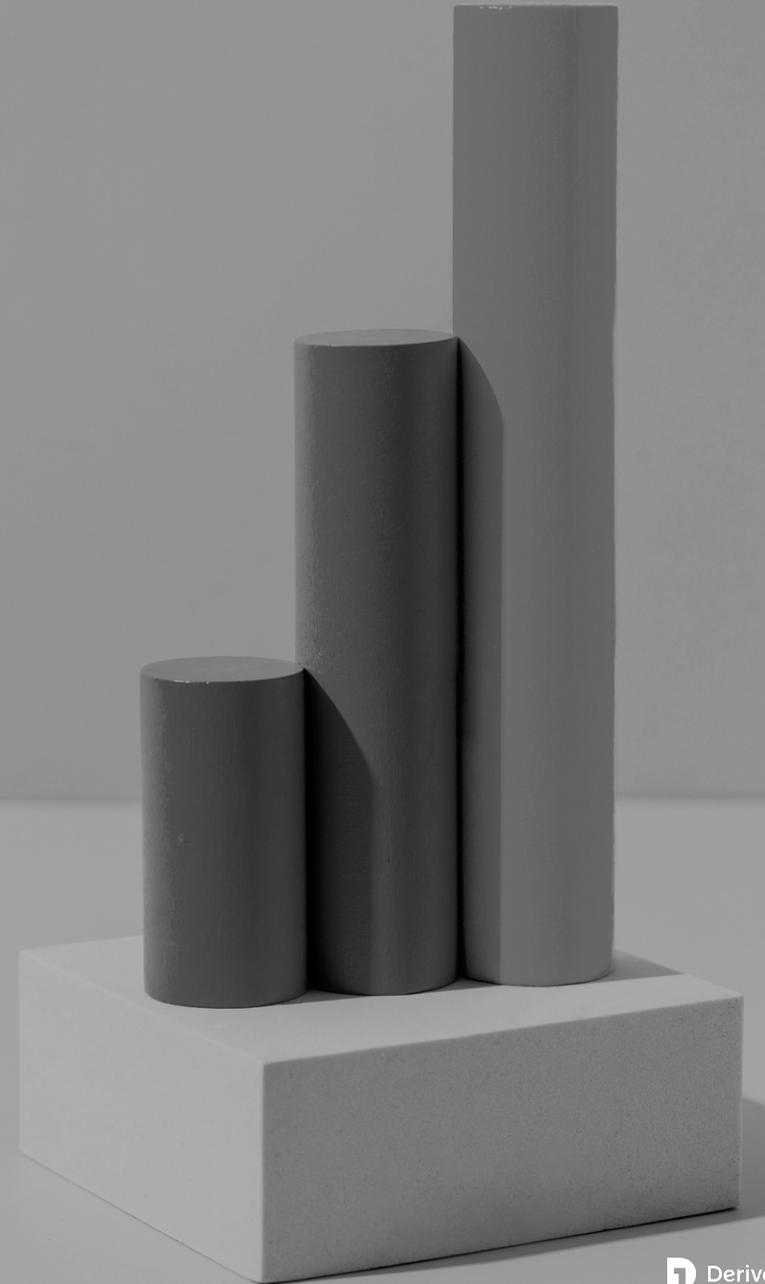
Mixed opinions about AI skill requirements, with a slight lean toward believing extra skills are needed

- We asked respondents about their thoughts on two opposite statements about whether specific skills aside from job-related domain knowledge is needed to be proficient in AI.

- Respondents lean toward believing AI requires additional skills beyond their job-related domain knowledge. However, the difference is rather small (56% vs 46%).

- The fact that both statements have substantial agreement suggests:
  - Users don't share a consistent mental model of what AI competency looks like.
  - There may be a **knowledge gap around what AI literacy entails**.

- In a following question where respondents were asked to name the skills they think are required to use AI tools effectively, basic digital literacy and the ability to communicate and frame prompts are the top two skills listed, matching with what we saw in the qualitative phase.

Agreement in AI Skill Statements
(n=201)

You don't need specific skills — using AI tools effectively at work mostly depends on your job-related domain knowledge.

Agree (T2B), 46%

You need specific skills aside from job-related domain knowledge to use AI tools effectively at work.

Agree (T2B), 56%

Top Skills Needed Mentioned

|	
1	**Basic digital/computer/technical literacy: digital/computer literacy, prompt writing, data analysis, and the ability to validate AI-generated outputs**
2	Ability to frame clear and specific prompts/questions; Communication and writing skills
3	Understanding AI capabilities and limitations
4	Critical thinking and analytical skills
5	Familiarity with the specific AI tool/interface
6	**Curiosity and willingness to learn**
7	Basic knowledge of the task/subject area

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Seven out of ten surveyed users show high confident in using AI tools at work

- A total of 73% of users surveyed indicated that they have high confidence when it comes to using AI tools at work.

- Nearly half of all respondents rated their confidence at a level four (on a five-point scale).

Confidence Level in Using AI Tools Effectively at Work
(N=201)
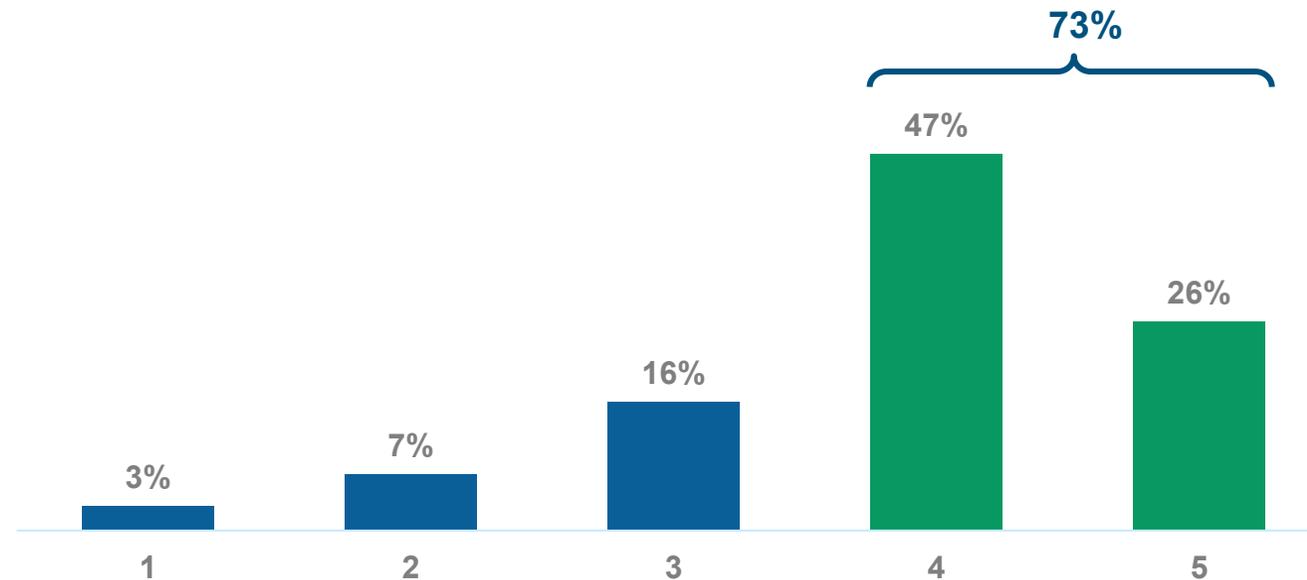
Q9. How confident are you in your ability to efficiently use AI tools at work?

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Confidence comes from broad use, not training alone

- The breadth of AI use measured by **number of tools and number of tasks** shows the strongest relationships with confidence (r ≈ .41–.42).

- While training also contributes to confidence, its impact is less pronounced (r = .25).

The moderate positive link between broad hands-on experimentation and confidence suggests that **an experimentation mindset is a key force behind growing AI proficiency**.

Correlation Matrix of AI Confidence, Training, and Usage

	AI Confidence	Training	Count of AI Tools Used	Count of AI Tasks Perfomed at Work
AI Confidence	1.00			
Training	0.25	1.00		
Count of AI Tools Used	0.42	0.25	1.00	
Count of AI Tasks Perfromed at Work	0.41	0.24	0.62	1.00

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Confidence in Proficiency and Trust in AI are closely connected

Trust in AI Across Different Scenarios

Low Trust	Total	by AI Confidence Level		
		1-3 n=54	4 n=93	5 n=53
Personal advice	20%	33%	16%	13%
Factual information	11%	15%	8%	13%
Already know the topic well	11%	19%	10%	4%
Work-related help	10%	20%	8%	2%
Reasoning or problem-solving	9%	19%	6%	2%
Topic I don't know well	7%	9%	4%	9%
Creative ideas or brainstorming	6%	7%	5%	4%
Average	*10%*	*17%*	*8%*	*7%*

High Trust		by AI Confidence Level		
		1-3 n=54	4 n=93	5 n=53
	Total			
Creative ideas or brainstorming	77%	65%	77%	87%
Reasoning or problem-solving	72%	48%	74%	92%
Topic I don't know well	69%	52%	74%	75%
Work-related help	66%	35%	75%	79%
Already know the topic well	66%	52%	63%	83%
Factual information	64%	56%	67%	68%
Personal advice	52%	31%	54%	70%
Average	*66%*	*48%*	*69%*	*79%*

- After grouping users into three confidence levels, we asked them to indicate how much they trust AI across several high-level scenarios.

- Overall, **low-confidence** users are cautious, while **high-confidence** users trust AI broadly.

- **Two scenarios stood out as exceptions: creative ideas** and **information on unfamiliar topics** as users at all confidence levels show high trust here.

- High-confidence users are far more likely than low-confidence users to trust AI with **work-related help** and **reasoning/problem-solving,** which show the largest trust gaps.
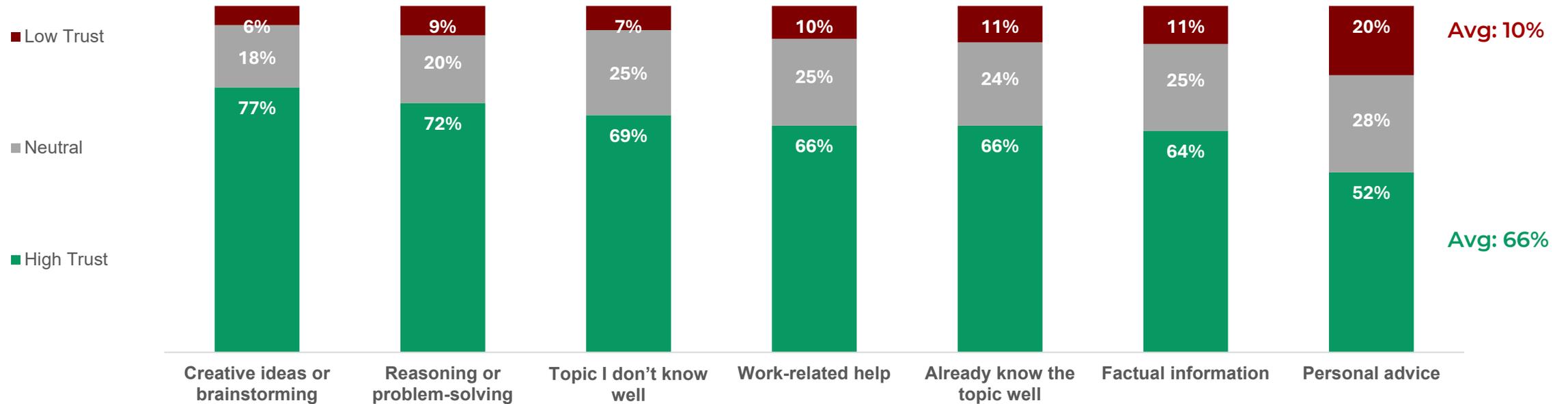
High confidence doesn't always mean a full understanding of AI's limits (i.e. reasoning), pointing to a meaningful gap that training can address.

Q27. How much do you usually trust the output of a chat-based AI tool in the following scenarios? (Scale 1-5)

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Everyday users generally have high trust in AI tools in all scenarios

- On average, 66% respondents would put high trust in an AI tools' ability to provide information in all scenarios, with a low trust average as low as 10%. **This indicates that these everyday users generally have very high trust in AI tools.**

- Although **personal advice** receives a comparatively **lower trust score**, there are **still more than 50% of the respondents who indicated they have high trust** in AI tools' ability in providing personal advice.

Trust in AI Across Different Scenarios

	Creative ideas or brainstorming	Reasoning or problem-solving	Topic I don't know well	Work-related help	Already know the topic well	Factual information	Personal advice	
Low Trust	6%	9%	7%	10%	11%	11%	20%	**Avg: 10%**
Neutral	18%	20%	25%	25%	24%	25%	28%	
High Trust	77%	72%	69%	66%	66%	64%	52%	**Avg: 66%**

Q27. How much do you usually trust the output of a chat-based AI tool in the following scenarios? (Scale 1-5)

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The Path to Effective AI Use In Your Organization: Six Actionable Takeaways

❖ **Human Barriers Slow AI Adoption**

Practical and emotional obstacles, like lack of awareness, trust, or perceived benefit, hold back workplace AI use. Addressing these requires more than technical fixes; organizations must actively engage users and build confidence.

❖ **"AI skills" are practical and observable:**

Proficiency is best measured by how well people use AI for real tasks, such as effective prompting and output evaluation. Training and hiring should focus on demonstrated, task-level abilities rather than abstract knowledge.

❖ **Curiosity drives proficiency**

Experimentation and hands-on practice are the strongest drivers of skill growth, more so than formal instruction. Encouraging a mindset of exploration helps users expand their capabilities and confidence.

❖ **Training should be relevant and efficient:**

Short, role-specific learning experiences have the greatest impact and fit real-world constraints. Design training to be immediately applicable, easy to integrate into daily work, and highly actionable for teams.

❖ **Assess skills, not just completion:**

Tracking actual skills and behaviors provides a better measure of enablement than counting course completions. Use practical assessments to ensure users can apply what they've learned in real scenarios

❖ **Responsible use needs attention:**

Users often overlook ethics, bias, and oversight, focusing mainly on getting results. Organizations should supplement practical skill-building with targeted training on responsible AI use, governance, and ethical standards.

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Thank you!

Let us know if you'd like a deeper walkthrough of the findings....