



Memory Architecture

Building Your District's Digital Brain &
Custom AI Coaches for Organizational
Knowledge



Let's Connect!



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Groundwork

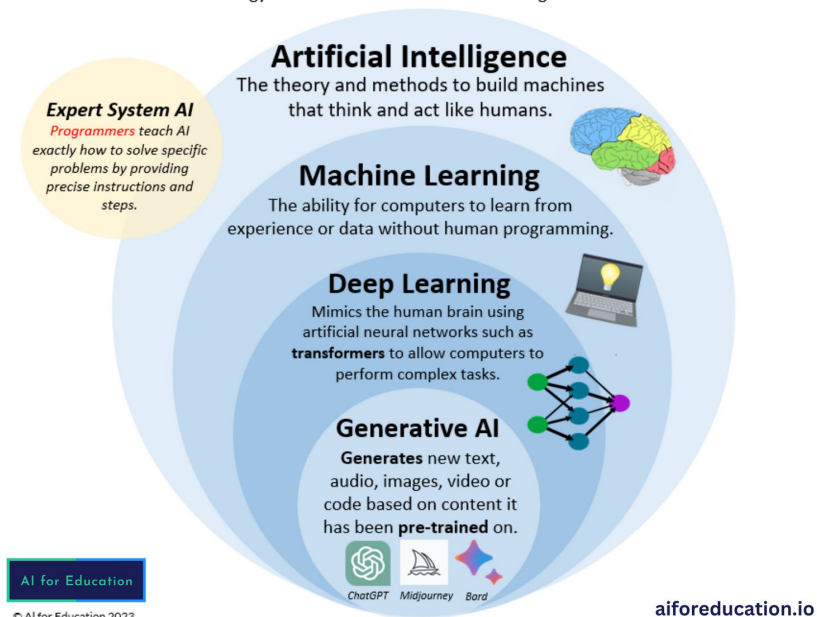


What is AI?

- Artificial Intelligence (AI) is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. (*Britannica*)
- We will be focusing on a subset of AI called Generative AI. This is any AI technology that generates new data off of existing data (text, images, [video](#), etc.).

Defining Generative AI

To understand generative artificial intelligence (GenAI), we first need to understand how the technology builds from each of the AI subcategories listed below.



What is AI?

- The most popular generative AI models are known as large language models (LLMs).
- The models have been trained on enormous amounts of data (essentially the entire Internet).
- Through algorithms and pattern recognition & analysis, they attempt to predict which letter, word, or sentence is most likely to come next.

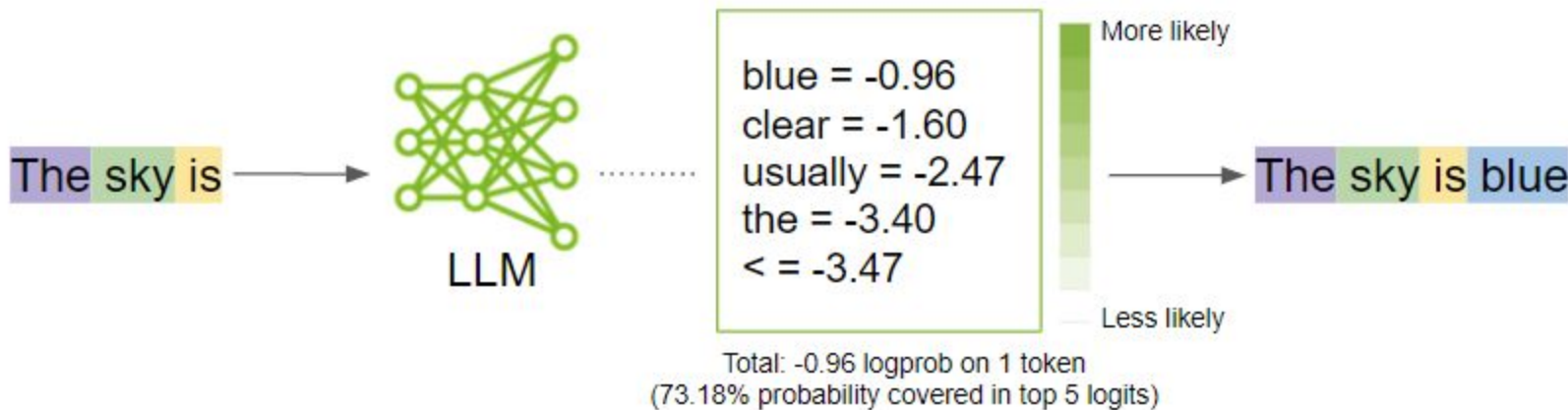
Examples of LLMs include:

- GPT-4o
- Claude
- Gemini
- LLaMA
- And many more...

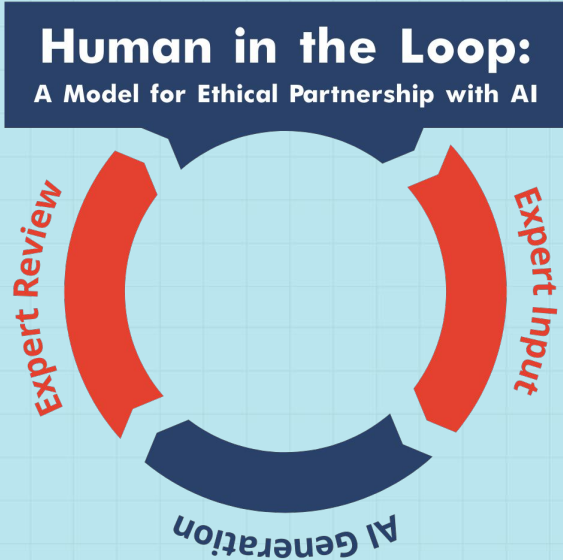
Interested in learning more? Consider watching [this resource](#).

<https://theresanaiforthat.com/>

Probability and Prediction



Credit: Nvidia (2023)



Disclaimers

1. AI is a tool. It can augment, not replace human intelligence.
2. AI is not an authority. It is not always 100% correct. **AI is a storyteller, not a truth teller.**
3. AI can be a starting point. We encourage using the Human in the Loop approach when using AI.
4. AI can save you lots of time...time for what?

Memory Architecture



The Problem We All Face

AI Knows Everything... Except What Matters Most

- ChatGPT knows Shakespeare but not your student handbook
- It can write poetry but doesn't know your district's procedures
- It's brilliant but has no memory of your context

The Result?

- Generic responses that miss the mark
- Time wasted explaining the same context repeatedly
- AI tools that feel disconnected from your reality



Solution? Memory Architecture

A well-organized knowledge base that gives AI tools the context they need to understand YOUR district

Instead of This:

"Write a parent communication about our snow day policy" (AI creates generic response)

You Get This:

AI automatically references your specific procedures, communication style, and district values

Live Demo

Using a Knowledge Base

1. Compass Knowledge Base
(single file)
2. The SDED Knowledge Base
w ChatGPT (single file)
3. Membership Project in
Claude (collection w cover)





Two Approaches

- 1) The “Bucket”
 - a) Unstructured
 - b) A few important documents
 - c) Good starting point
- 2) The “Brain”
 - a) Carefully constructed
 - b) Often built from scratch or built off of old documents
 - c) A single document/package that can be shared across parties as needed
 - d) Useful for human participants as well

Building the “Brain”



Building Blocks: The BRAIN Framework

B - Basic Structure

R - Rich Context

A - Accessible Language

I - Indexed and Tagged

N - Networked Resources



What Goes In Your Digital Brain?

Core Content:

- District policies and procedures
- Communication templates and style guides
- Organizational charts and contact information
- Standard operating procedures
- FAQ compilations from real situations

Enhanced Content:

- Board meeting insights and decision context
- Community communication examples
- Crisis response protocols
- Budget and staffing guidelines

B – Basic Structure

The Foundation of AI Understanding

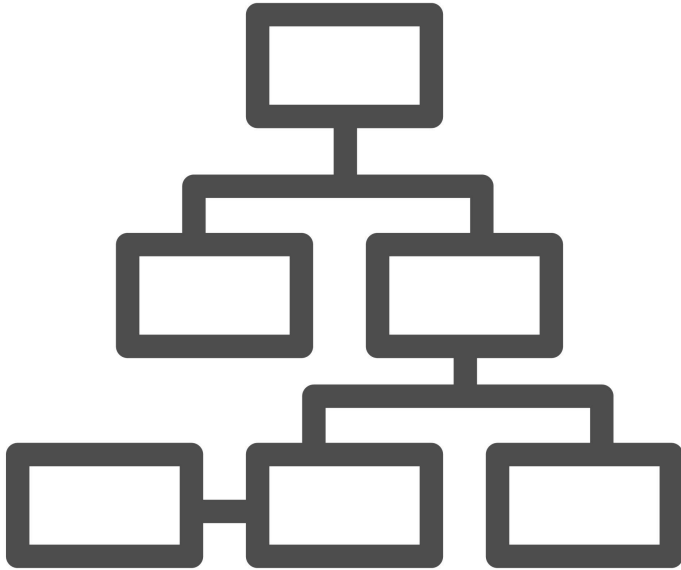
What It Is: Clear titles and categories with consistent formatting across all content

Why It Matters:

- AI systems rely on patterns to understand how information is organized
- Consistent naming conventions teach AI how to navigate your knowledge
- Standardized formatting helps AI reliably extract key information

Example: "Student Attendance - Elementary Schools - Version 2.1" immediately tells both AI and humans what they're looking at, where it fits organizationally, and how current it is

Bottom Line: Think of this as creating a logical filing system that both humans and AI can follow intuitively





R – Rich Context

Beyond What to Why and How

What It Is: Real examples from your organization and background on decisions

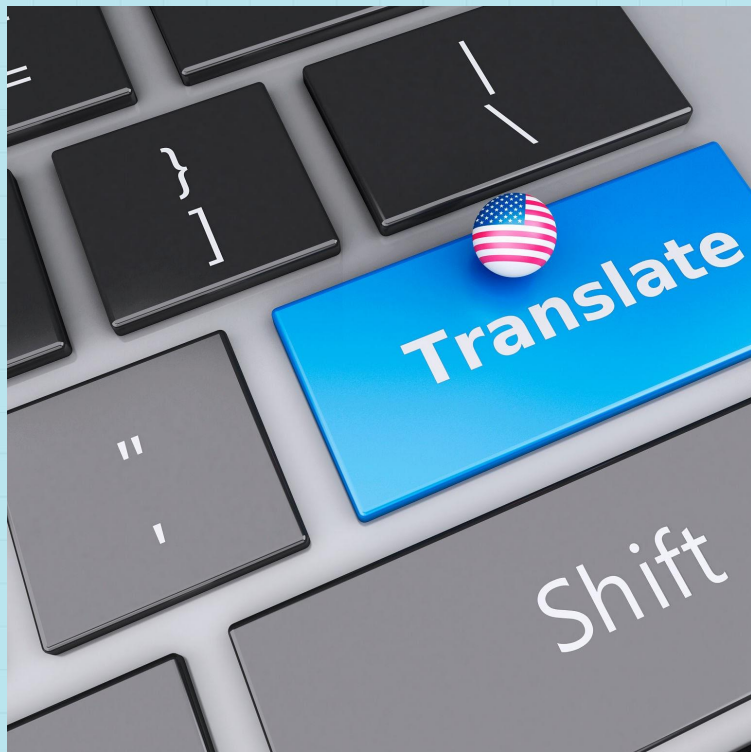
Why It Matters:

- Transforms static information into dynamic learning resources
- Helps AI understand not just what policies are, but why they exist
- Enables nuanced, appropriate guidance rather than generic responses

What to Include:

- The story behind policy decisions
- Board meeting discussions and community concerns
- Previous approaches that didn't work
- Implementation challenges and lessons learned

Bottom Line: Context is what separates a generic knowledge base from an intelligent organizational resource



A – Accessible Language

Clarity for All Users

What It Is: Plain language principles with clear definitions and minimal jargon

Why It Matters:

- AI systems can be confused by unclear or inconsistent terminology
- Makes information accessible to humans regardless of expertise level
- AI learns your organization's voice through language patterns

Bad Example: "Implement remediation protocols per IEP specifications" **Good Example:** "Follow the specific intervention steps outlined in the student's Individual Education Plan (IEP)"

Bottom Line: Clear language reduces AI misinterpretation while making information accessible to all users



I – Indexed and Tagged

Creating Intelligent Connections

What It Is: Comprehensive overviews and tagging systems for easy retrieval

Why It Matters:

- Creates webs of interconnected information
- Reflects how people actually search for information
- Enables AI to make intelligent suggestions and connections

Example: Tag a safety protocol with: emergency procedures, student welfare, staff responsibilities, parent communication

Multiple Search Terms: Same procedure might be searched as "lockdown," "security emergency," "safety protocol," or "emergency response"

Bottom Line: Good indexing helps AI provide comprehensive guidance rather than piecemeal responses



N – Networked Resources

Building Information Ecosystems

What It Is: Connected documents and multimedia links that create information webs

Why It Matters:

- Transforms isolated documents into interconnected knowledge ecosystems
- Anticipates users' needs rather than forcing them to hunt for related information
- Helps AI understand how information fits together organizationally

Example: Emergency procedures document links to:

- Communication templates
- Staff contact lists
- Relevant state regulations
- Training videos

Bottom Line: Networking creates comprehensive resources that consider multiple organizational perspectives and requirements

Final Notes





Common Pitfalls to Avoid

- **Static Content**
 - ❌ "Set it and forget it" mentality
 - ✅ Regular updates and maintenance
- **Too Technical**
 - ❌ Complex formatting and jargon
 - ✅ Clear, accessible language
- **No Ownership**
 - ❌ No one assigned to maintain it
 - ✅ Clear responsibility and update schedules



The Future is Contextual

What's Coming:

- AI that remembers your district's history
- Automated policy compliance checking
- Predictive communication based on community patterns
- Real-time knowledge base updates

Your Foundation Today:

Building this knowledge base now positions your district for these advanced capabilities

Conclusion

AI without context is just fancy autocomplete. AI with YOUR context becomes your district's superpower.



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