

SIERRA CLUB CATHOLIC FELLOWSHIP

Nuts, Bolts, & Bots:

A No-Nonsense Guide to Staying Human in the Age of AI

Understanding Artificial Intelligence
Through Faith, Reason & Creation



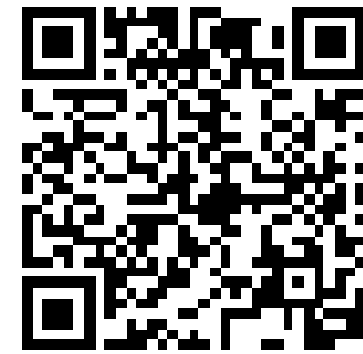


AI Advocates

@KUAIAdvocates ·

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S1 E10: Using AI-Generated Videos to Support Learners

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Is AI Safe?



Microsoft Copilot

<https://copilot.microsoft.com/>

CustomGPT

<https://www.customgpt.ai/>



A Pivotal Moment in Human History

Technology takes on the characteristics of those who devise, finance, regulate and use it.

(¶ 9; Pope Leo XIV)



Humanity, created by God in all its grandeur, is today facing a pivotal choice: either to construct a new Tower of Babel, or to build the city in which God and humanity dwell together.

— Pope Leo XIV, Magnifica Humanitas ¶ 1 (May 15, 2026)

This encyclical is the first papal document dedicated entirely to artificial intelligence.

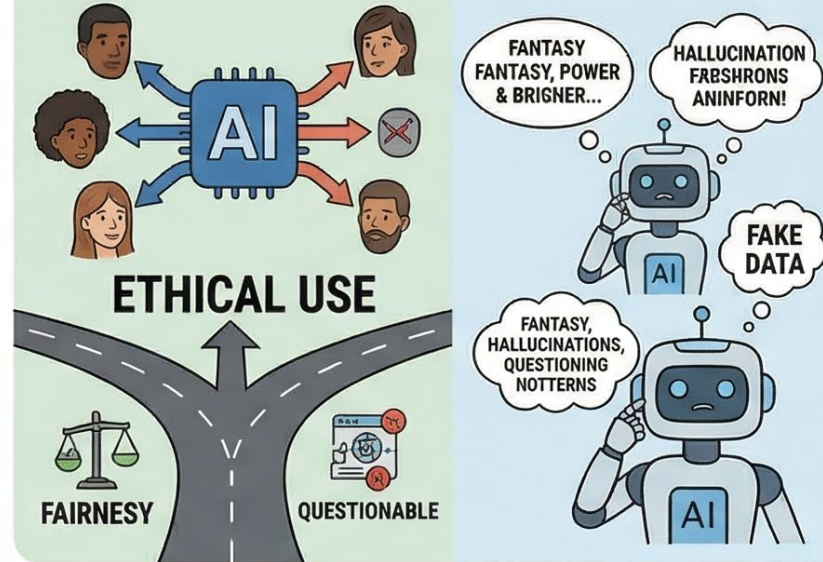
Why AI?

I Choose to Know Not to Fear

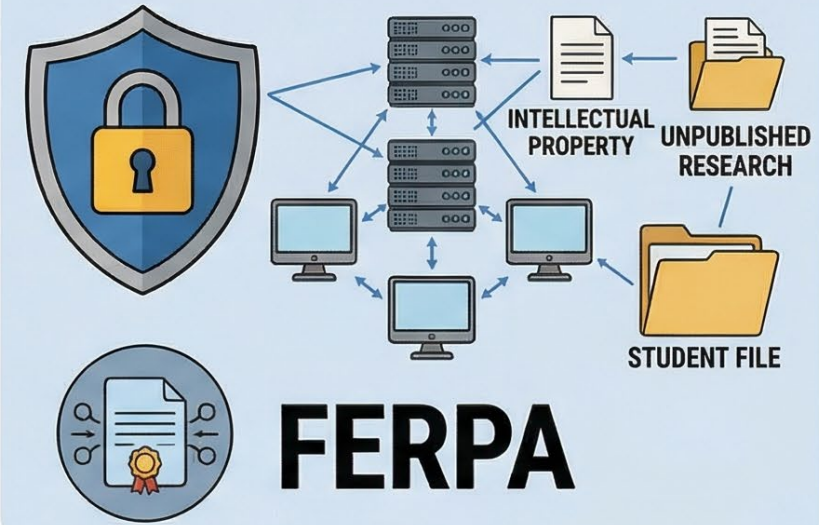
1. Academic Integrity & "The Shortcut"



2. Bias, Ethics, and Equity



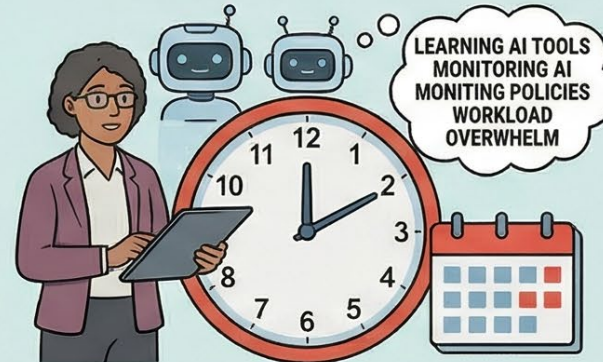
3. Data Privacy and Security



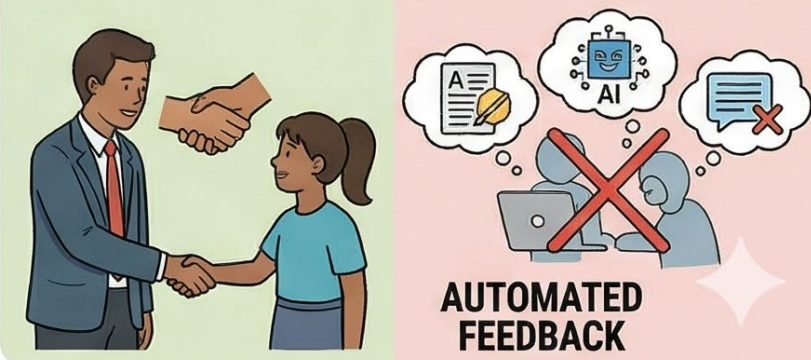
4. Role Displacement & Devaluation



5. The "Time Tax" of Learning



6. Erosion of Human Connection



What Is Artificial Intelligence?

In plain language:

AI is software that learns from vast amounts of information and uses that learning to answer questions, generate text, recognize images, translate languages, or make decisions.

Think of it as a very well-read assistant that has consumed millions of books, articles, and websites — and can respond in seconds.

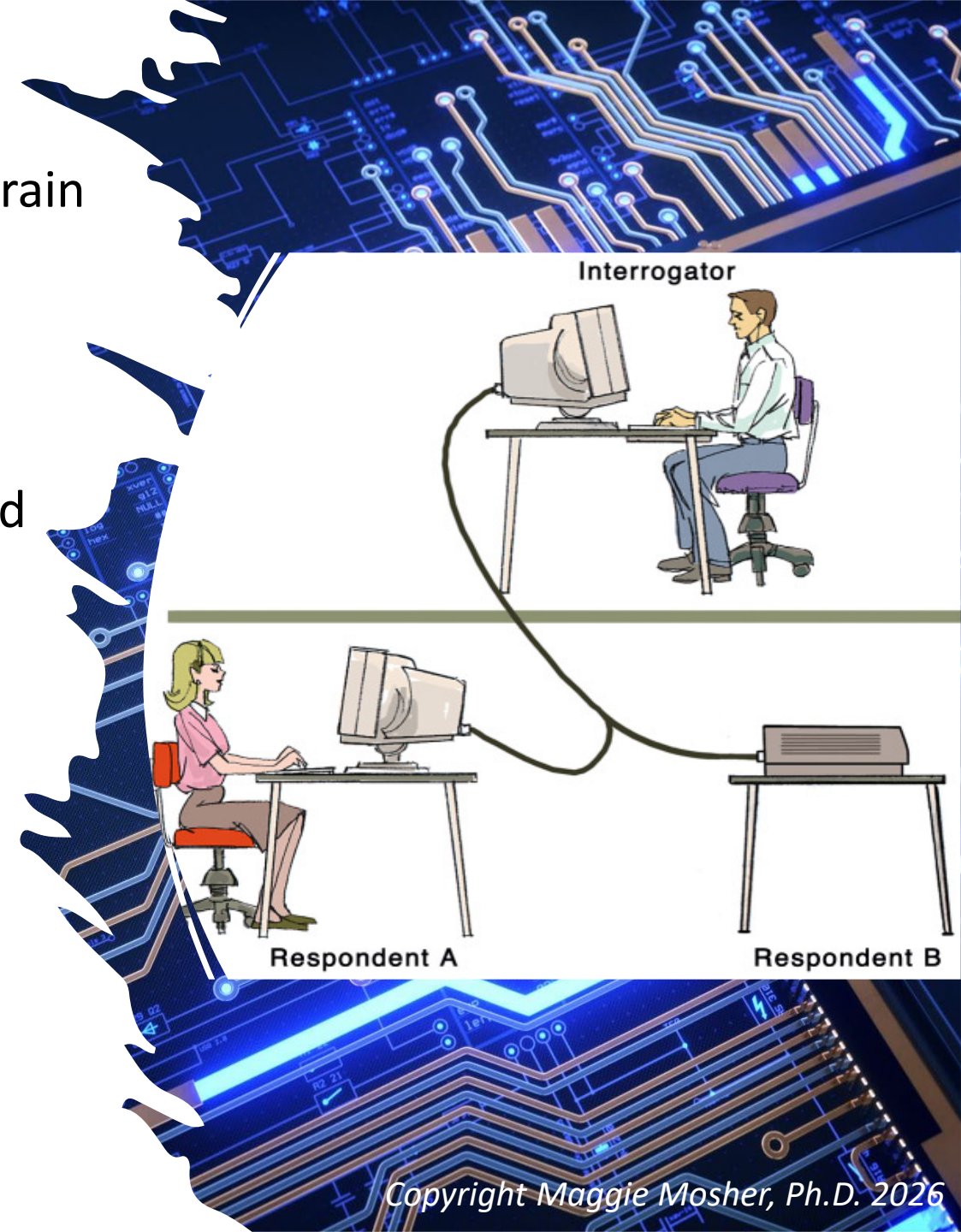
A Helpful Comparison

A hammer is a tool. It doesn't decide what to build — you do.

AI can help you write, analyze, plan...but like all tools, it reflects the hands and values of those who build and use it.

Happy 82nd Birthday

- 1943 McCulloch & Pitts: Boolean circuit model of brain
- 1950 Alan Turing's Test, Markov Models [HMMs], Gaussian Mixture Models [GMMs]
- 1956 Dartmouth: "Artificial Intelligence" adopted
- 1969 Early knowledge-based systems [1st chatbots Eliza (1966), Parry (1972)]
- 1970 AIEd was introduced with the creation of the Turtle robot & computational LOGO (Papert et al., 1971)
- 1980 AI becomes an industry



More Abridged History of AI

- 1981 Chatbot Jabberwacky (Cleverbot in 1990)
- 1987 AI becomes a science
- 1995 The emergence of intelligent agents
more chatbots Alice (1995), Deepblue (1997)

• More sophisticated:

IBM's 2010 Watson;

Apple's 2011 Siri;

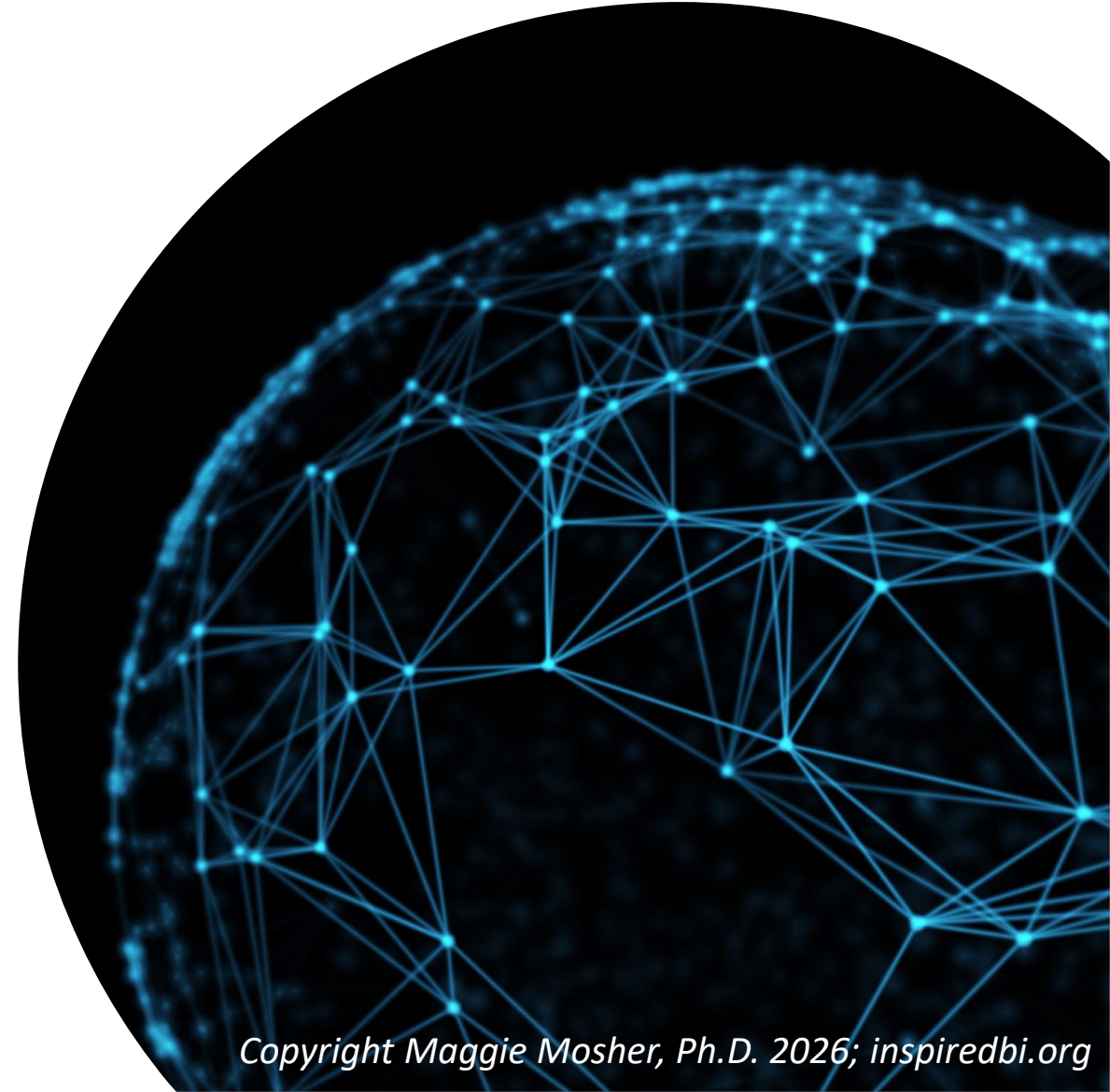
Amazon's 2014 Alexa & 2017 Lex;

Microsoft's 2014 Cortana & 2018 Xiaoice;

Google's 2020 Meena & 2023 Bard;

Meta's 2022 Blenderbot; & OpenAI's ChatGPT

(Ciesla, 2024)



AI You Already Use

GPS & Maps

When Waze or Google Maps re-routes you around traffic — that's AI predicting road conditions in real time.

Email Spam Filter

AI silently sorts thousands of junk emails so they never reach your inbox.

Spell-Check

The red underline in Word or your phone's autocorrect: AI analyzing grammar and word patterns.

Voice Assistants

Siri, Alexa, or OK Google — AI that understands spoken language.

Medical Imaging

AI now reads X-rays and MRIs, flagging suspicious areas for doctors to review.

ChatGPT & Copilot

Tools you can type questions to, like asking a knowledgeable friend.

Why Is Everyone Talking About AI Now?

ChatGPT reached 100 million users in 2 months — faster than any technology in history.

For comparison: the telephone took 75 years; the internet took 4 years.

Never has humanity had such power over itself.

— Pope Leo XIV, *Magnifica Humanitas* ¶ 4

Three things make today's AI different:

1. Speed: AI analyzes data in milliseconds that would take humans decades.
2. Scale: One AI system can interact with billions of people simultaneously.
3. Decision-making: AI now influences what we read, what loans we get, even medical diagnoses.

The Good AI Can Do

AI has the power to heal, connect, educate and protect our common home.

(Pope Leo XIV acknowledges ¶ 9)

Medicine

Detects cancer in scans earlier than human eyes. Discover cures for certain cancers. Monitors patients remotely, especially in rural areas.

Environment

Tracks deforestation, monitors endangered species, and Department of Energy reports optimizes energy grids more accurately than humans.

Accessibility

Be My Eyes, read aloud, translates, signs, assists with mobility. In my life, it has been a game changer here.

Education





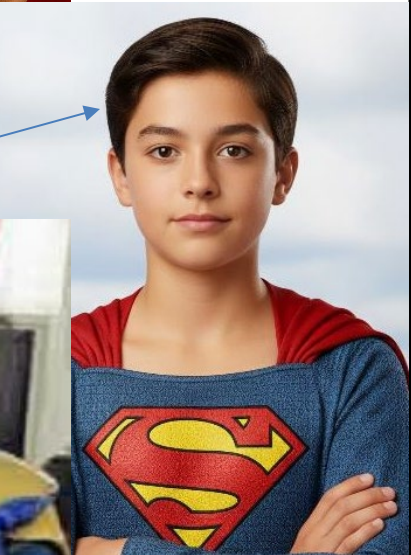








AI tutors can personalize learning for students who lack access to good teachers.

Poverty

AI helps predict crop failures, guide disaster relief, and get financial services to the unbanked.

Connection

AI translation breaks language barriers, letting missionaries, aid workers, and families stay connected.

Students in 8 th ,4 th ,6 th ,&11 th	AI Tool	Transformation & Relationship Impact
 <p>Grace</p>  <p>Wallace</p>		<p>Simplified & Relevant → Gained independence self-adapting all materials, learning through visual connections</p>
 <p>Hector</p>  <p>Jada</p>	<p>Goblin Tools  & CustomGPT</p>	<p>Used “Formalizer” to convert, less bossy & determine accurate sources → Built confidence, checks tone</p>
 <p>Hector</p>  <p>Jada</p>	<p>Notebook LM  & Brisk AI</p>	<p>Uploaded science notes → Kid-friendly explanations → Gave first-ever class presentation with peers talking to hosts</p>
 <p>Hector</p>  <p>Jada</p>	<p>Gemini Pro & Suno  </p>	<p>Turned Macbeth into a song → Teacher used as exemplar → Sparked connection</p>

*What happens when we build
without God at the center?*

When Technology Becomes an Idol

The dangerous tendency to let efficiency, profit, and control become the only values that matter -- reducing people to data points and cogs in a machine.

"More power does not necessarily imply something better."

-- Pope Leo XIV, Magnifica Humanitas para. 93

**The Babel
Syndrome**

**Private Power
Steers**

**False
Promises**

The Pope's Vision: The Way of Nehemiah

Against Babel, Pope Leo XIV holds up a different image: Nehemiah rebuilding Jerusalem's walls.

Every family took responsibility for their own section of the wall. Together, a broken city was made whole.

God at the Center

Nehemiah fasted and prayed before acting. Technology must be oriented toward God and human dignity, not profit.

Shared Responsibility

Not one person, but all of us (scientists, workers, educators, faith communities) each has a section of the wall.

The Human Person First

Progress is measured by the dignity of each person, not by efficiency or output.

Care for the Vulnerable

The 'rejected stones' (the poor, the sick, the elderly) must become the cornerstone of any just future.

ETHICS Framework

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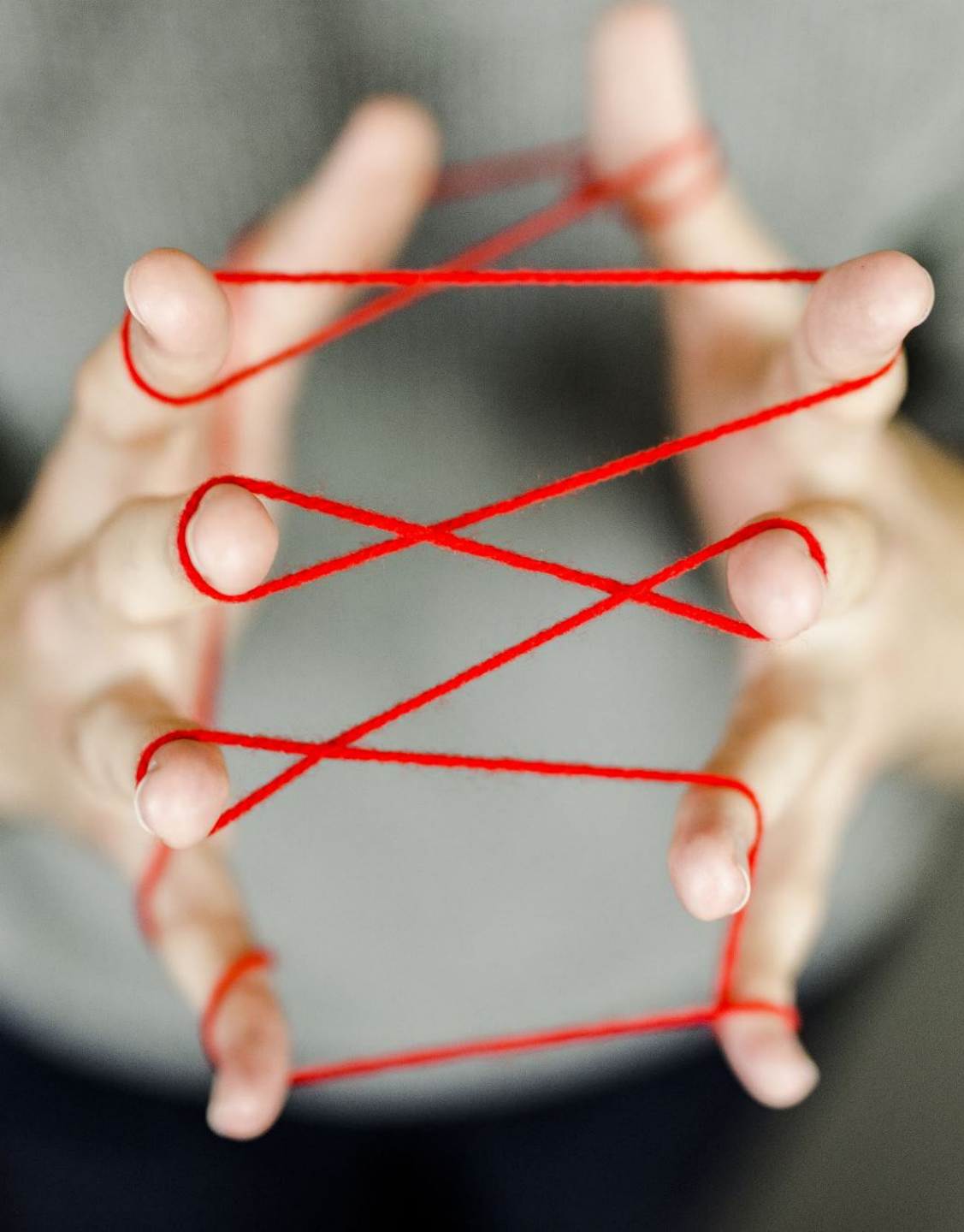


E

Evaluate & Validate



Critically assess AI outputs, data sources, and the AI tools you choose to use.



Categorize AI...

By Scope:

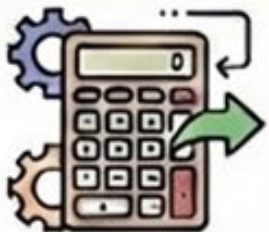
- Narrow vs. General

By Learning Style:

- Supervised vs. Unsupervised

By What it Does:

- Reactive, Predictive, Generative, Multimodal, and Agentic



Reactive

What is this according to the rules?



Predictive

What will likely happen next?



Generative

Can you make something new for me?



Multimodal

Can you see, hear, and read this?



Agentic

Can you handle this project for me?

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T

Tool Application



When effectively implemented, ask: is it best for the job, or is human interaction better?




NOTEBOOK LM

Sources



+ Add sources

 Try Deep Research for an in-depth report and new sources!

 Search the web for new sources

 Web  Fast Research 

Select all sources

 Aspire: Neurodiversity, Occupational ...

Chat



Aspire: Neurodiversity, Occupational Therapy, and Coaching

1 source

The provided text is an excerpt from the professional profile of **Alison Stewart**, an individual with a Master of Education and certification as an Occupational Therapist, who operates a private practice named **Aspire! Occupational Therapy & Coaching LTD**. Stewart explicitly states that her approach centers on **presumed competence** and a strong commitment to a **neurodiverse philosophy**, rejecting neuronormative methods that she feels cause harm like masking and trauma. Her extensive experience of over 49 years in occupational therapy is applied through various services, including **1:1 assessment, small group intervention, consultation, and coaching**, offered in settings ranging from clients'

Start typing

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1 source

Studio





 Audio Overview 


 Video Overview 


 Mind Map

 Reports

 Flashcards 

 Quiz 

 Aspire: Neurodiversity,...
1 source · 113d ago

 Aspire: Neurodiversity,...
1 source · 123d ago

Video Agent

Avatar

New video

Today

Co-teaching in Class

Translate

Tools

Projects

← **Co-teaching in Class**

Now let me generate the resources for your video:

Completed 75s

- Created 2 A-roll scenes and 3 B-roll scenes
- Created counter-rotation assist task. Evidence

The Power of Co-Teaching **Download**

The Power of Co-Tea...
Today, 7:37pm

How do you like your Video Agent video?

Support
Diverse Instructional Perspectives

Better academic outcomes, improved social-emotional support, and

0:27 / 0:38

Timeline Make a copy and open in AI S

00:27 / 00:38 1x

Scene 1 **Scene 2**

PARALLEL TEACHING



Co-teaching is more than just sharing a



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Based on Magnifica Humanitas · Pope Leo XIV, May 2026*

1. The Crumpled Comprehension Relay

Snowballs sentence fragments, unfold, read aloud, and sequence into a correct paragraph.

Center Ideas from Our Gem:

A AI Advocates Move While You Learn • Custom Gem

Show thinking ▾

[Prompt from Eric Curts - <https://www.controlaltachieve.com/>]

Ask Gemini 3

+ Tools

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2. Story Action Stations

Read short character descriptions and must race to put on the correct "clothes" to act out that character.



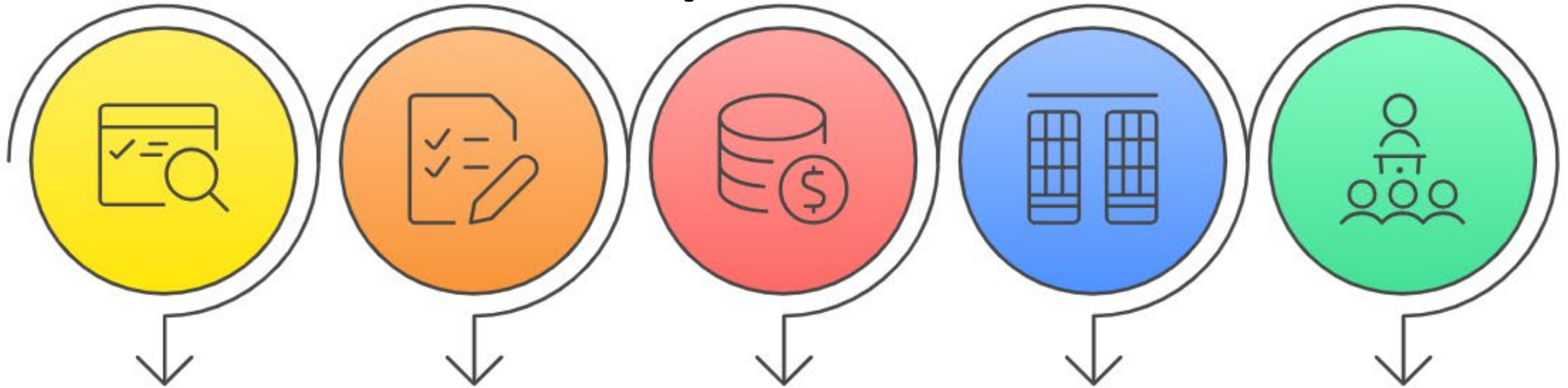
3. Vocab Target Practice

Read a target vocabulary word toss balls into specific "baskets" or sort the words by syllables, parts of speech, or rhyming sounds.



Student resources

Napkin.ai



Application Status

Check the status of your application.

Admitted Checklist

Tasks to complete before starting classes.

Financial Aid

Information on financial aid and scholarships.

Housing

Details about on-campus housing options.

Orientation

Information about new student orientation programs.

Hey listen!



suno.com



Create a Cover from any sound!
Reimagine the melodies you love.



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E Evaluate & Validate



Critically assess AI outputs, data sources, and the AI tools you choose to use.

T Tool Application



When effectively implemented, ask: is it best for the job, or is human interaction better?

H Human & Societal Impact



Consider the ethical and social effects of AI on people and communities.

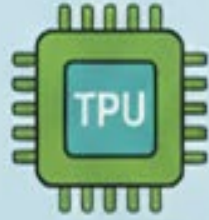
Optimizing AI Models



Pruning & Distillation (LoRA)



* Low-Rank Adaptation *



Determining Best for Task



Data Center & Infrastructure



Protocols



Open-Weight Models

Hardware & Energy Efficiency



Eco-Cooling



Efficient Hardware



Carbon-Aware Scheduling

Industry-Wide Initiatives




Eco-Cooling Scheduling



Transparency & Reporting



Sustainability Culture



**Dear Lord, bless us
and keep us;
Let Your face
gently shine
upon us—
be gracious to us.
Lift up Your
countenance,
and until we're in
Your arms,
grant us here
below Your peace;
surround us with
Your love.**

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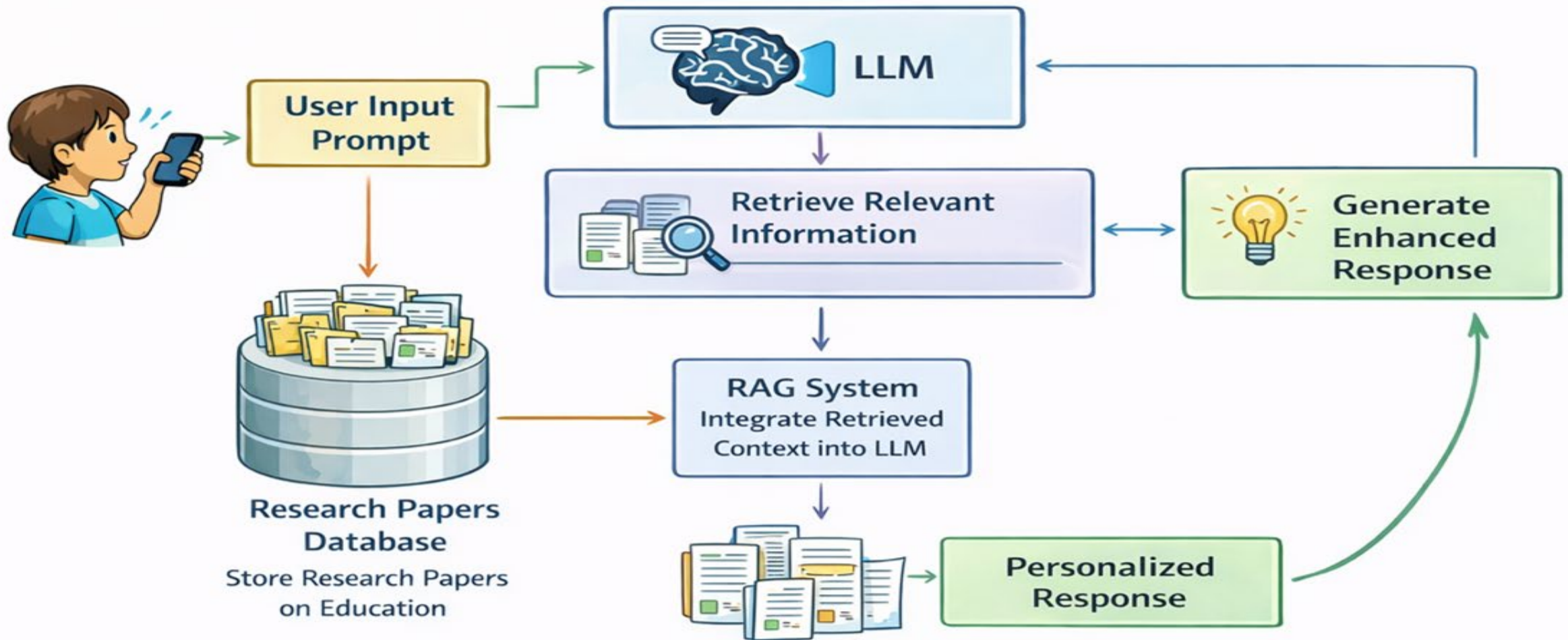
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I Inner Workings & Fundamentals



Understand the foundational concepts of AI, such as how Large Language Models (LLMs) function.



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C Context & Governance



Maintain awareness of AI policy, accountability, and the context in which it is used.

What Must Never Be Lost: Human Dignity

In the era of artificial intelligence, when human dignity is threatened by new forms of dehumanization, ours is the pressing duty to remain profoundly human. We must lovingly safeguard the grandeur of humanity bestowed upon us and revealed in its fullness in Christ, the splendor of which no machine can ever replace.

— Pope Leo XIV, *Magnifica Humanitas* ¶ 15

What AI cannot do:

X Love

X Pray

X Feel compassion

X Experience beauty

X Know God

X Bear a soul

**X Make moral
choices**

**X Truly understand
suffering**

Practical: How to Use AI Wisely

Tools worth trying (free, easy to use):

CustomGPT (chat.openai.com)

Ask it anything: explain a medical term, summarize an article, draft a letter, suggest a recipe, understand a Scripture passage.

Google Gemini Pro3.5 (gemini.google.com)

Similar to ChatGPT. Great for answering questions, planning trips, or discussing ideas.

Voice Assistants

Your phone already has one. Say: Hey Siri, what is the weather or OK Google, remind me to take my medicine.

- Training large AI models consumes enormous energy (one training run can equal flying across the US 300 times)
- Data centers require massive water for cooling
- Mining rare minerals for AI hardware harms ecosystems

Wisdom for using AI:

- ✓ Always verify important information from other sources
- ✓ Never share sensitive personal or financial information
- ✓ Treat AI as a helpful assistant, not an authority
- ✓ Keep using your own judgment and conscience
- ✓ Stay skeptical of deepfake images and videos
- ✓ Be cautious of AI-generated news or emails

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Context & Governance



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S

Safety & Fairness



Ensure AI is responsible, respectful, and accessible for all.

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Our Call: Builders of Communion

Like Nehemiah, let us pray, plan wisely and work perseveringly, placing God at the forefront of our actions and the human person at the center of our choices.

— Pope Leo XIV, *Magnifica Humanitas* ¶ 16

Pray & Discern

Ask God for wisdom about which technologies serve human dignity and which threaten it. Bring AI questions to your conscience.

Stay Informed

Read about AI from trusted sources. Check out inspiredbi.org. Listen to podcast.

Advocate

Support regulations that protect. Recommend so those get funded over other initiatives.

Use Technology for Good

If you use AI tools, use them to connect with others, learn, serve your community, and protect creation.

Protect Truth

Verify before you share. Guard against disinformation. Be a source of trustworthiness in your family and community.

Care for the Young

Share your wisdom and faith values with them about using technology wisely. KEEP THEM OFF CHARACTER AI.

Remain Profoundly Human

*True progress always stems from a heart open to others,
an intelligence willing to listen,
and a will that seeks what unites rather than what separates.*

— Pope Leo XIV, *Magnifica Humanitas* ¶ 15

Questions & Discussion — Let's Talk!



Consider These...

1. Have you used any AI tools? What was your experience? Any surprises?
2. Where do you see the need for Catholic values in the AI output?
3. What human qualities do you value most that you believe AI can never replace?
4. As a Sierra Club member, what environmental opportunities and risks from AI concern you most?
5. How can our faith community help younger generations use AI wisely?
6. Is there one area where you think AI could genuinely help you or someone you love?