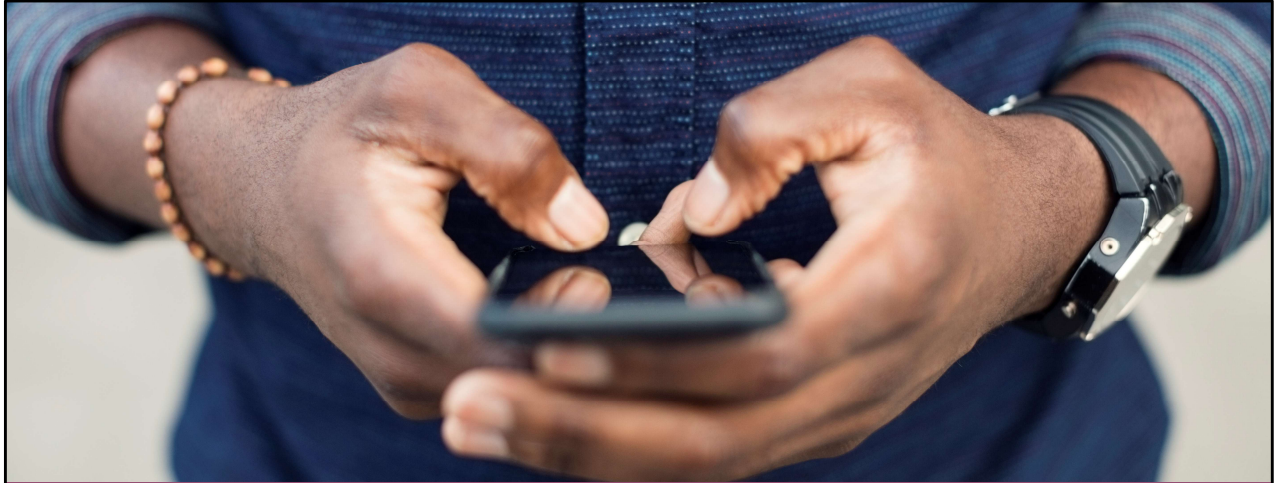




Friction in Formation: Goldilocks Challenges in the Era of A.I.

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Agenda

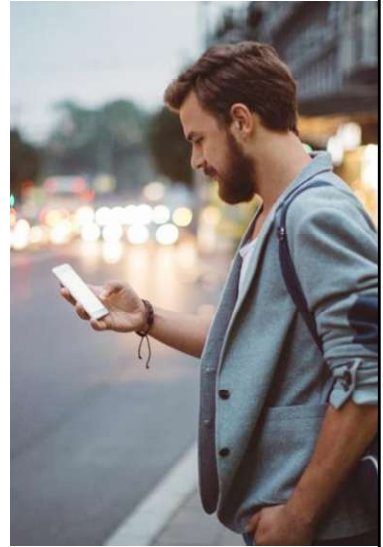
What is AI and where is it today?

Getting to the (Real) Problem

A Helpful Paradigm (🧐)

Diagnosis

Suggestions & Next Steps





Last Year (2025)

- Last Year's Presentation: What is Generative AI?
- Many professor's first interaction with Generative AI



This Year (2026)

- This year's Presentation: What is left for students to do?
- Live Example
- AI has gone from 'helpful tool' to 'does my job better than I do' -Matt Schumer

Prompts:

1. Write a 1,500-word graduate-level theological paper on Hebrews 5:8 explaining how suffering contributes to spiritual formation. Include engagement with at least three scholars, clear structure, pastoral application, and a compelling conclusion.
2. Create a 4-week small group curriculum on Romans 5:3–4 for a church context. Include teaching summaries, discussion questions, real-life application, and a leader guide.
3. I am teaching a graduate-level course titled "introduction to Christian education" at dallas theological seminary. Please do the following:
 - Create 4–5 measurable learning outcomes aligned with Bloom's Taxonomy
 - Design a 12-week course schedule with weekly topics, readings, and assignments
 - Propose 3 major assessments (with brief descriptions and grading weights)
 - Map each assignment to the learning outcomes (assessment alignment table)
 - Include 2–3 methods of assessing student formation (not just cognitive mastery)
 - The course should integrate theological depth, ministry application, and student formation.

Quote to read: (Something big is happening in AI — and most people will be blindsided By February 11, 2026)

- AI models aren't incremental improvements. This is a different thing entirely. The experience that tech workers have had over the past year, of watching AI go from "helpful tool" to "does my job better than I do", is the experience everyone else is about to have. Law, finance, medicine, accounting, consulting, writing, design, analysis, customer service. Not in 10 years. The people building these systems say one to five years. Some say less. The market was spooked enough this month [February 2026] that it [wiped out \\$1 trillion](#) worth of software value in just a week. ... We're past the point where this is an interesting dinner conversation about the future. The future is already here. It just hasn't knocked on your door yet.

The Problem

"A student just submitted the best paper I've seen in five years... and I realized that they may not have actually learned anything."

- Professors Ask: Are We Just Grading Robots? (Chronicle of Higher Education, June 2024)
- At least 88% of faculty in English, history, humanities, and social sciences each report students using GenAI for writing essays or papers. (College Faculty Perceptions of Generative Artificial Intelligence in Higher Education, Feb 2026)
- Faculty from most selective colleges are the most likely to report student use of GenAI for many classroom-related activities. (College Faculty Perceptions of Generative Artificial Intelligence in Higher Education, Feb 2026)

About 6 in 10 teens say students at their school use AI chatbots to cheat at least sometimes

% of U.S. teens ages 13 to 17 who say that as far as they know, students at their school use AI chatbots to cheat on their schoolwork ...



Note: Those who are homeschooled or did not answer are not shown.

Source: Survey conducted Sept. 25-Oct. 9, 2025.

How Teens Use and View AI

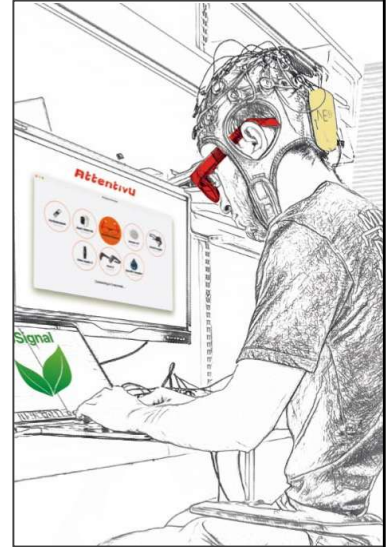
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The (Real) Problem

“AI tools...can make it easier for students to avoid the intellectual effort required to internalize key concepts, which is crucial for long-term learning and knowledge transfer.”

-Your Brain on Chat GPT
(MIT), Dec 2025



The (Real) Problem Cont.

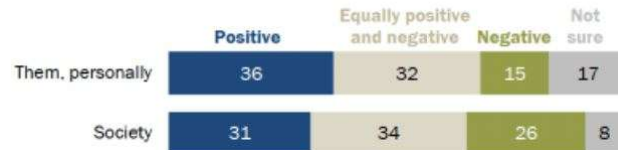
Synthetic Competence & Reduced Cognitive Effort:

- Dunning–Kruger Effect
- Inflated confidence (hidden danger)
- Fallacy of diminishing returns.
- “If students can complete your assignment without thinking, AI makes it very likely they will.”

Dunning–Kruger Effect

Teens are more positive than negative about how AI will impact them

% of U.S. teens ages 13 to 17 who say they think the impact of AI on each of the following over the next 20 years will be ...



Note: "Very" and "somewhat positive" are combined, as are "very" and "somewhat negative." Those who did not answer are not shown.

Source: Survey conducted Sept. 25-Oct. 9, 2025.

"How Teens Use and View AI"

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Know nothing

Competence

Guru

Pre AI: **Effort → Struggle (Cognitive Load) → Formation → Output**

Post-AI: **Prompt → Output**

**The (Real)
Problem Cont.**

Generative AI is a
threat to student
formation in that it
naturally reduces
“cognitive load”

Read: Over three-fourths (79%) of faculty either say they are just starting to explore what’s needed in guiding GenAI use in the classroom or that they have some understanding but still need guidance. (College Faculty Perceptions of Generative Artificial Intelligence in Higher Education, Feb 2026)

The (Real) Problem: Not Integrity but *Formation*

Effort in thinking
builds schema
which strengthens
working memory
Sweller



Failed attempts
regularly proceeds
mastery
Kapur



Bjorks
Adding “friction” to
our learning can
actually strengthen
learning



Seligman/Brown
Hardship can
actually be a
pathway to positive
mental health

The (Real) Problem Cont.

Not an integrity but
formation



...we also glory in our sufferings, because we know that suffering produces perseverance; perseverance, character; and character, hope. (Romans 5:2-4)



[Christ] is the one we proclaim, admonishing and teaching everyone with all wisdom, so that we may present everyone fully mature in Christ. To this end I strenuously contend with all the energy Christ so powerfully works in me. (Colossians 1:28-29)



Son though he was, [Christ] learned obedience from what he suffered and, once made perfect, he became the source of eternal salvation for all who obey him (Hebrews 5:8-9)



A sluggard's appetite is never filled, but the desires of the diligent are fully satisfied. (Proverbs 13:4)

The Real Problem: Not Integrity but *Formation*

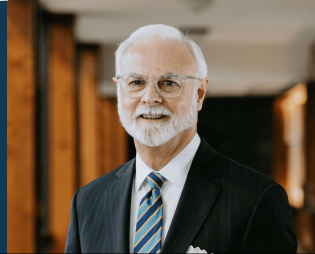
Submission to
disciplines is how
the Christian
person is formed
Dallas Willard



Growth depends
on co-laboring with
Personal Holy Spirit
Donald Whitney



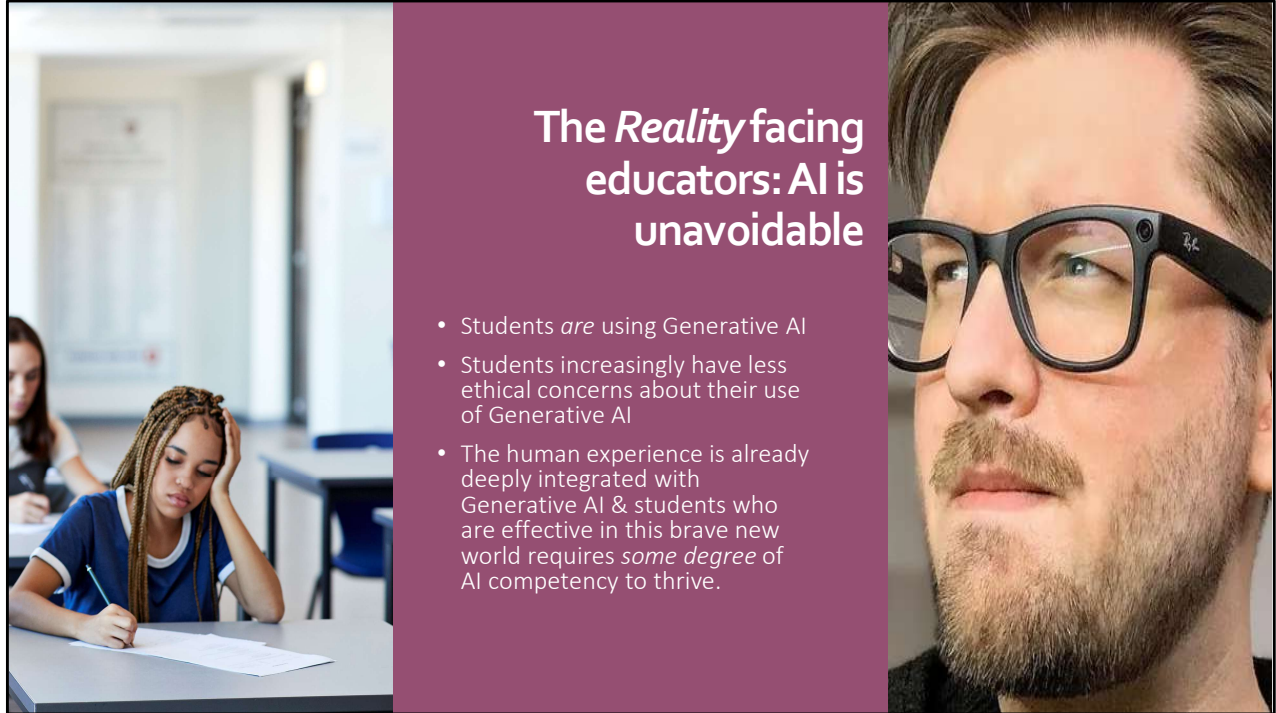
James Smith
Habits shape
desire/affections



Plantinga (Keller)
Necessity of constant
dependency on
God's transcendent
perspective rather
than one's own

If formation requires ongoing personal effort, then any tool that reduces ongoing personal effort must be carefully governed.

The *Real* Problem Educators have with AI:
We are now assigning (& grading) artifacts that no longer reliably represent formation.



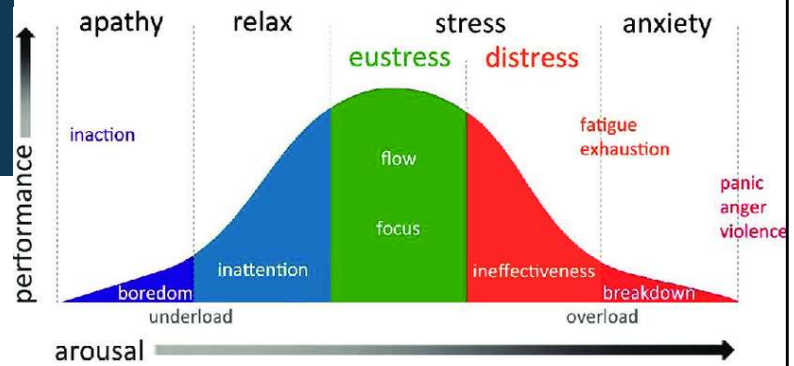
The *Reality* facing educators: AI is unavoidable

- Students *are* using Generative AI
- Students increasingly have less ethical concerns about their use of Generative AI
- The human experience is already deeply integrated with Generative AI & students who are effective in this brave new world requires *some degree* of AI competency to thrive.

I was overly confident in my understanding of calculus, until the exam.

A (Human) Goldilocks Solution

- Yerkes-Dodson "Law" (1908)
- Donald Winnicott (1896-1971) Child development pioneer & the "good enough mother"
- Malcolm Gladwell popularized term in 2008



A (Course Focused) Goldilocks Solution



No AI In Courses

- Unrealistic
- Students highly formed, but unable to minister in "real world"



Balance of AI Integration

- Student appropriately assisted by a tool.
- Students enabled to focus (appropriately) on desired outcomes.
- Programs gradually introduce more powerful tools.



Unrestrained AI Use In Courses

- The most likely future
- Formation Fragmented but Incredibly Productive
- Student Replaced by Generative AI or sabotaged by lack of character



Diagnosis (AI Limits)

Generative AI is most impressive precisely where formation is least required—and least helpful where formation matters most.:

1. Knowing
2. Doing
3. Becoming



"Use the Right Tool for the Right Job"



AI Limits Knowing

- Hallucinations
- “LLMs optimize for coherence, not truth.” (Chat GPT) What if the true world is not obviously coherent?
- Difficulty distinguishing settled knowledge vs. Debated issues
- Difficulty distinguishing primary and secondary issues
- Only Safe enterprise topics
- not allowed to engage in potentially compromising sexuality topics
- lack of privacy (you can't ask those questions, even in your mind)
- Weak causal reasoning (Correlation or causation?)

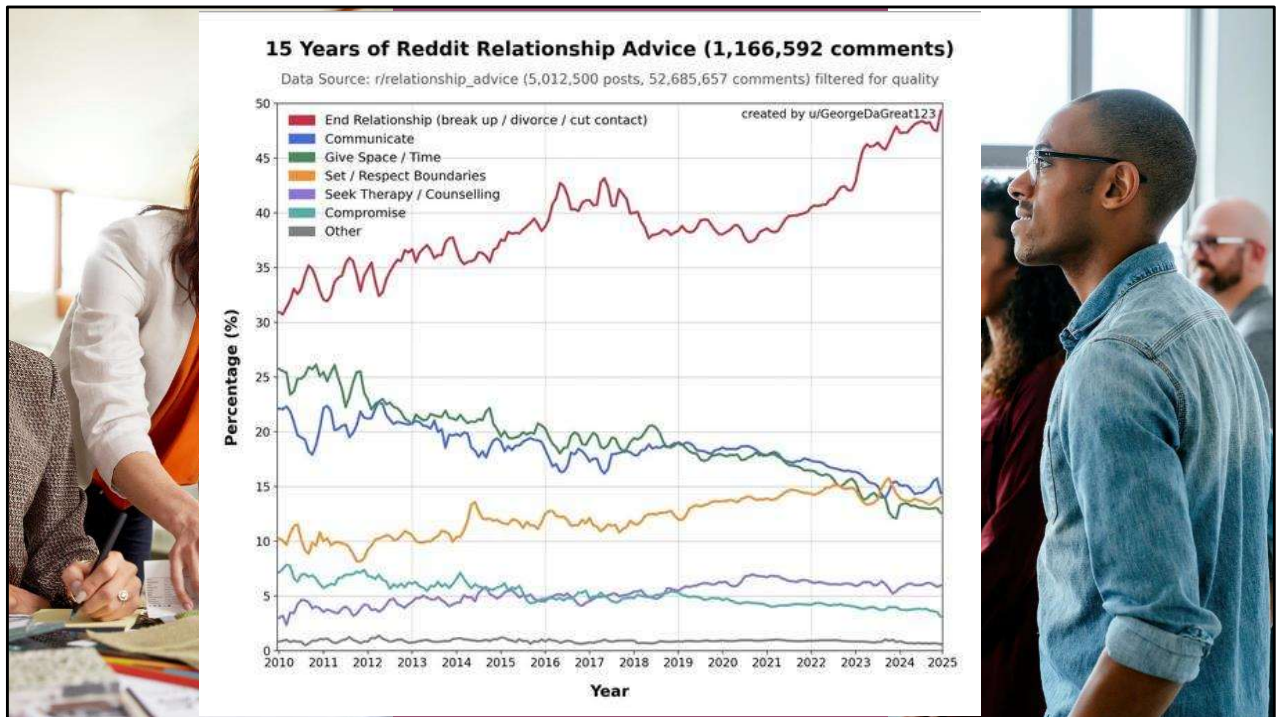




AI Limits Wisdom

- No experience
 - Relational depth/confidence
 - Experiential depth/confidence
- No wisdom/judgment
 - Excellent theological precision/generalities , poor defense under questioning or adaptation to pastoral contexts.
- Cannot read:
 - tone in a room
 - spiritual state of a person
 - cultural nuance deeply
- Cannot exercise prudence/context-sensitive ethical reasoning
- Inability to recognize Bias (at least this is *possible* for humans!)





Proposed Design Moves for Formation

1. Process > Product
 - require drafts, reflections, checkpoints
 - Grade *thinking*, not just output
2. Personalization (lived context)
 - “Integrate your ministry context”
 - “Include a real counseling scenario”
 - AI struggles with lived experience
3. Embodied Experiences (oral, in-class)
 - Short presentations
 - Q&A
 - In-class explanation

Proposed Design Moves for Formation (Cont.)

4. Communal

- Shared experiences within learning community
- if we don't experience the friction / am missing something experientially and formatively

5. AI-aware (disclose, critique)

- "Use AI for X, but not Y"
- Michael Svigel: have AI write 15-page paper, now you critique
- Require disclosure and critique of AI output

6. Reflection (struggle, dependence)

- "Where did you struggle?"
- "What did AI help with vs hinder?"

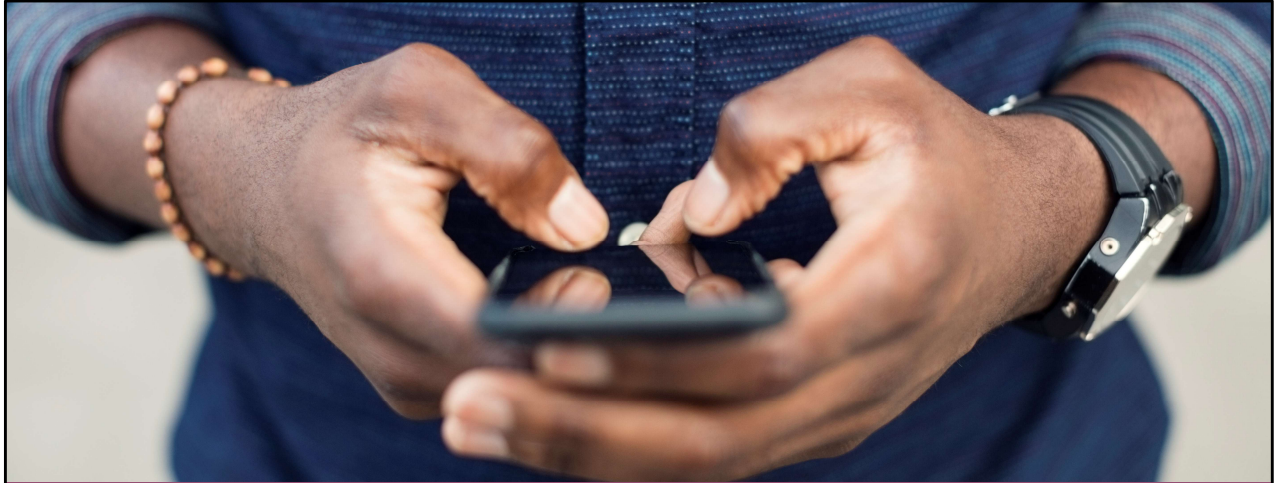
Closing:
Protecting
production or
student formation?

A large proportion of published
papers receive zero citations
-Eugene Garfield
(Science Citation Index)

If we are not careful;
students *will*
produce more than
ever,
and be formed even
less.



- Story of being recognized in class after having forgotten I wrote the paper.
- AI accelerates production, but it does not accelerate formation. Christianity, uniquely, is not about production. For too long Christian Education has been in the production business and this is an invitation to re-align the (actual) goal of distinctively Christian instruction: Love. (1 Tim 1:5)



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