

# AI in the Curriculum: Challenges & Opportunities

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## Framing the Conversation

- **Reality Check:** AI already in workflows; disciplines differ; no one-size-fits-all
- **Today's Goal:** Share challenges & spark reflection
- *“Not about answers — just questions worth asking”*

*AI Acknowledgment: AI tools were used in the initial drafting and development of this document. All content has been reviewed, refined, and validated through human expertise and professional judgment.*

I'm sharing observations from my own teaching and conversations with colleagues - you'll likely recognize these patterns.

- AI is already here - students using ChatGPT for assignments, staff for admin tasks
- Engineering will use it differently than Creative Writing - acknowledge this
- We're exploring together, not prescribing solutions
- Set expectation: discussion starter, not definitive guide

**Elephant in the room:** We need to talk about AI shame - tease what's coming

Some of you might be thinking 'not another AI talk' - but we need to talk about what's actually happening in our classrooms

Let me share four challenges I'm seeing...

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## Over-Trust: The “Fountain of Knowledge” Problem

- **Challenge:** Students over-trust AI
- **Impact:** Weakens critical thinking
- **Response:** Error-spotting, critique, reward questioning

I watched a student refuse to question an obviously wrong AI answer because ‘the AI said so’

- Students treat AI like authoritative source
- Hesitant to disagree even when they know better
- “But ChatGPT said...” becoming common refrain
- Give students an AI explanation with 2 deliberate errors
- Works across disciplines: wrong physics formula, incorrect historical date, buggy code, flawed diagnosis
- Students initially struggle to spot errors they’d normally catch

**Response strategies:** - Make error-hunting a regular exercise - Compare multiple AI responses to same prompt - Reward students who challenge AI answers - “Find three ways to improve this AI response”

**Key message:** Critical thinking matters MORE with AI, not less

But over-trust isn’t the only problem...

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## Over-Use: Shortcuts vs. Scaffolds

- **Challenge:** AI as bypass, not support
- **Risks:** Shallow learning, plagiarism fears, lost skills
- **Response:** Frame AI as scaffold within pedagogy

## BLOOM'S TAXONOMY

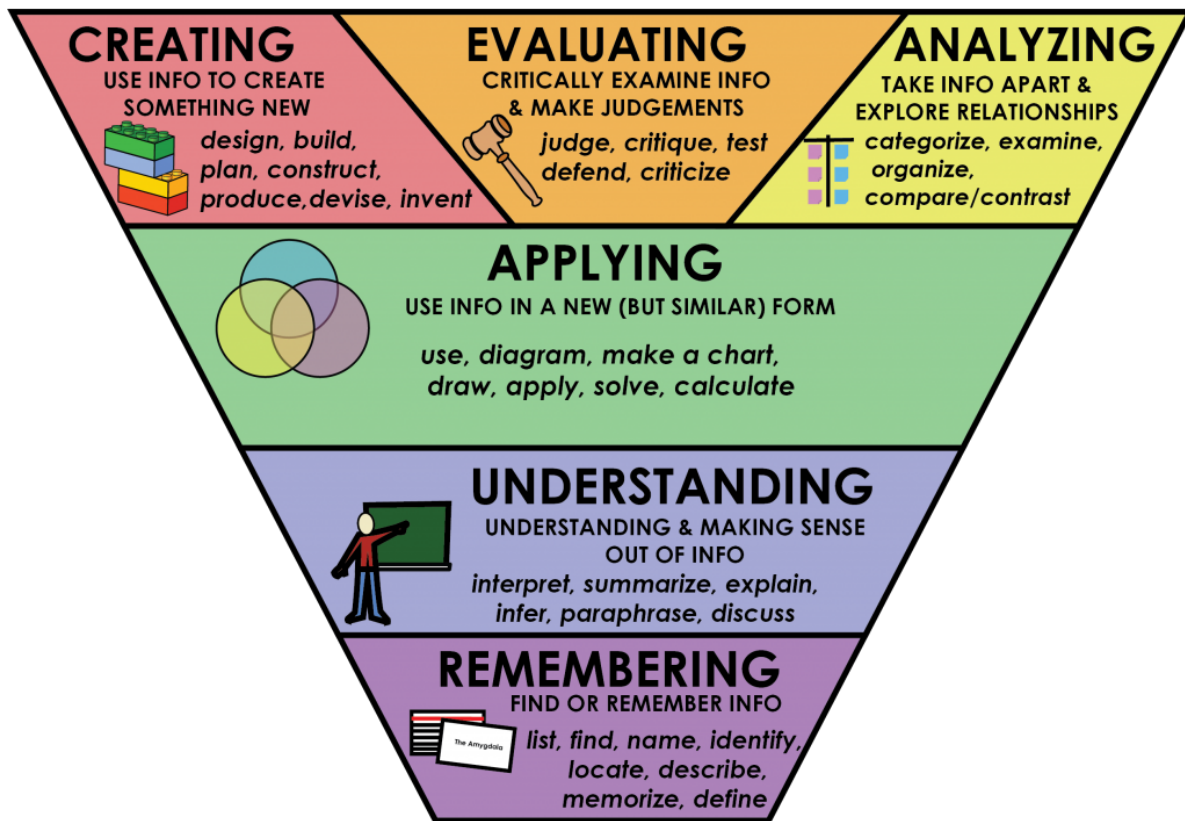


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**The distinction:** “There’s a difference between using AI to skip learning and using it to enhance learning”

- Students jump straight to “give me the answer”
- Miss the learning that comes from struggle
- Can’t explain their “own” work
- Panic when asked to work without AI

**Bloom’s Flip explanation:** - Traditional: Start at Remember/Understand, work up to Create - AI Era: Start with Create/Evaluate WITH AI support - Then work backwards to build foundational understanding - Example: Create a marketing campaign (with AI) THEN learn marketing principles

**Practical example:** - Don't use AI to write essay from scratch - DO use AI to generate counter-arguments to strengthen your thesis - Use it as sophisticated sparring partner, not ghostwriter

"This isn't lowering standards - it's changing the journey"

"Now, some staff see this as AI breaking education..."

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## Misplaced Blame: It's Not the Tool

- **Challenge:** Staff blame AI for integrity issues
- **Response:** Adapt assessment, don't ban
  - Authentic, Personalised, Reflective
- *Past tools changed assessment, AI will too*

**Historical context:** - Calculators "ruined" mathematics → we adapted assessments - Wikipedia "destroyed" research → we taught evaluation - Google "killed" memorisation → we focused on application - Spell-check "weakened" writing → we emphasised ideas over mechanics

"AI doesn't break assessments, it reveals what was already breakable"

**Assessment evolution examples:** - Authentic tasks: Real-world problems with no single answer - Personalised: Connect to student's own experience/context - Reflective: "Explain your process" "What would you do differently?" - In-class components: Presentations, demonstrations, peer review

**For the skeptics:** - Banning won't work - they'll use it anyway - Better to teach proper use than pretend it doesn't exist - "We don't ban calculators, we teach when to use them"

But there's a hidden challenge we rarely discuss...

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## Fear of AI: The Root of Resistance

- **The Fear:** “AI will replace me” | “I’ll become obsolete” | “My expertise won’t matter”
- **The Reality:** Every new tool sparked fear
  - Printing press → scribes worried
  - Calculators → mathematicians concerned
  - Internet → everyone panicked
- **The Pattern:** Those who adapted thrived

Let’s name the real issue - fear. Not fear of technology, but fear of irrelevance. I feel it too. When I first saw ChatGPT write a decent lecture outline, my stomach dropped. ‘What’s my value now?’

But here’s what I learned: AI makes my expertise MORE valuable. It handles the routine so I can focus on what only humans do - connect, inspire, judge, create meaning. Students need us MORE to help them navigate this, not less.

The choice isn’t whether AI enters education - it’s already here. The choice is whether we guide its use or let students figure it out alone.

- Anchor story: “When I first saw ChatGPT write a lecture outline, my stomach dropped.”
- Reframe: “AI makes my expertise more valuable — because only I can judge, connect, inspire.”
- Takeaway: “Students don’t need us less, they need us more — to guide them through this shift.”

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## AI Shame: The Hidden Barrier

- **Challenge:** Students & staff feel guilt/cheating
- **Impact:** Underground use, stress, lost learning
- **Response:** Normalise, Teach process, Share examples

*When I first used AI for teaching prep, I felt like I was cheating. Anyone else?*

**Student experiences:** - “I’m not really learning if I use AI” - Hide AI use from peers - worried about judgment - Imposter syndrome intensifies - Won’t ask for help with AI - too ashamed

**Staff experiences:** - “Real academics don’t need AI” - Secret experimentation - won’t share successes - Fear colleagues will think less of them - Worry about being “found out”

**Why this matters:** - Drives use underground → can't develop best practices - Creates unnecessary stress for everyone - Prevents skill development in AI collaboration - Blocks innovation and sharing

**The reframe:** - Using AI well **REQUIRES** expertise - You need domain knowledge to evaluate outputs - Creativity to direct it effectively - We don't say "spell-check wrote my paper"

- Share your own AI use openly: "I used Claude to help structure this presentation"
- Teach the process: prompting, evaluating, iterating
- Make it part of academic integrity discussions, not separate

So how do we move forward constructively?

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### Three Practical Pathways

1. **Learning Assistant:** Brainstorm, counter-arguments, debugging
2. **Teaching Partner:** Practice problems, draft feedback, adaptive tasks
3. **Discipline Tool:** Engineering, Business, Health, Arts

**Frame positively:** "These aren't replacements - they're enhancements"

**1. Learning Assistant examples:** - Brainstorming: "Give me 10 unconventional approaches to this problem" - Counter-arguments: "What would critics say about my thesis?" - Debugging: "Help me understand why this code/formula/logic isn't working" - Socratic dialogue: AI as questioning partner

**2. Teaching Partner examples:** - Generate practice problems based on individual student errors - Create first-draft feedback (you refine and personalise) - Build adaptive quizzes that adjust to student level - Develop case studies relevant to your cohort

**3. Discipline-Specific examples:** - Engineering: Design validation, optimisation scenarios, failure analysis - Business: Market analysis, strategy simulation, competitor research - Health: Diagnostic reasoning practice, patient interaction scenarios - Arts: Concept iteration, style exploration, critique generation - Law: Case analysis, argument construction, precedent research - Education: Lesson plan variations, differentiation strategies

**Key message:** Every discipline can benefit - question is how, not if

"Start small - pick ONE thing that takes too much time"

"Let me share a real example from last week..."

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## Quick Win: 30-Minute Experiment

- **What:** Worksheet → HTML in 30 min
- **Result:** Upload both versions, more engagement
- **Key Insight:** Options, not replacements

**Set the scene:** - “After our last session, colleague went back to office...” - Not particularly tech-savvy - Had a PDF style worksheet they’d used for years

**The process:** 1. Took PDF of worksheet 2. Prompted AI: “Convert this to an interactive HTML exercise with instant feedback” 3. AI generated the code 4. Tested it quickly 5. Uploaded BOTH versions to Blackboard 6. Total time: Less than a coffee break

**The results:** - Students choose interactive version - Some will still preferred PDF - and that’s fine! - Interactive users engaged more, completed faster - PDF users had their familiar option

**Breaking through AI shame:** - They chose content, evaluated output, tested - AI was just the formatting tool

**The lesson:** - We’re adding options, not replacing what works - Students appreciate choice - No risk approach - can always revert

“There are tools to help with this...”

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## Showcase: Curriculum Curator (FLX)

- **Tool:** Import → Restructure → Save 80% time
- **Value:** Supports staff, not replaces
- **Takeaway:** Efficiency

**Quick overview:** - FLX tool specifically designed for curriculum - Import existing materials - PDFs, slides, documents - Restructure into different formats - Extend with additional examples/exercises

**Specific example:** - 10 hours creating new module content → 2 hours curating/refining - Import last year’s content → Update with current examples - Generate practice questions from lecture notes

**Address the elephant:** - No shame in being efficient - Using tools for busywork = more time for students - You’re still the expert - tool just handles formatting/structure

**Key selling point:** - It’s not about replacing your expertise - It’s about amplifying it - Like having a teaching assistant who never sleeps

**Practical use cases:** - Quick quiz generation from lecture content - Converting static content to interactive - Creating multiple versions for different cohorts - Accessibility improvements (alt formats)

“Even if you never use it for creation, it’s great for reformatting”

“But the real questions are...”

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## Questions to Guide Your Thinking

- Where can AI save time?
- How could students practice discipline-specific skills?
- What risks/barriers must we prepare for?
- How do we move past AI shame?

“I’m not expecting answers today - just want you thinking”

**Where can AI save time?** - Routine tasks: Grading rubrics, email responses, meeting summaries - Content creation: Quiz questions, worked examples, case studies - Administrative: Report writing, grant applications, reviews - Ask yourself: “What do I dread doing because it’s repetitive?”

**Discipline-specific skills practice:** - What would junior professionals in your field use AI for? - What simulations could AI enable that weren’t possible before? - How could students practice client/patient interactions? - What expensive/dangerous scenarios could AI simulate?

**Risks and barriers:** - Over-reliance - students who can’t work without it - Accuracy issues - hallucinations, outdated information - Equity - not all students have equal access - Industry expectations - what will employers expect?

**Moving past AI shame:** - How do we model healthy AI use? - What would transparent use look like in your course? - How do we separate tool use from academic integrity?

**Future consideration** - What skills become MORE important when AI handles routine tasks? - Critical thinking, creativity, ethical reasoning, human connection



## Let's Discuss

- What's one small thing you could try next week?
- What concerns need addressing?
- How might your discipline benefit/challenge?
- Have you felt AI shame?
- "These are conversation starters, not required answers"
- "Who wants to share a thought, concern, or experience?"

**Small experiment ideas:** - Use AI to generate discussion questions for one topic - Create alternative explanations for difficult concepts - Draft marking rubric with AI, then refine - Generate practice problems for next tutorial

**Common concerns:** - "This enables cheating" → Redirect to assessment design discussion - "My discipline doesn't need AI" → Any repetitive tasks they hate - "This is moving too fast" → Acknowledge, suggest tiny experiments - "Students won't learn properly" → Discuss scaffolding vs replacement

"These conversations are just beginning..."

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## Thank You

- *"Not about answers — just questions worth asking... together, without shame"*
- **Next Step:** Try one small experiment, share results
- *"The best way to predict the future is to help create it"*

**Reinforce key messages:** - We're all figuring this out together - Small experiments, not wholesale change - Share successes AND failures - both valuable - No shame in using tools to work smarter

**Resources available** - Example prompts for worksheet conversion - Access to Curriculum Curator for interested parties - Discipline-specific AI use cases document - "Moving Past AI Shame" discussion guide

**Call to action emphasis:** - "One small experiment" - lower the bar - "Share results" - build community of practice - "Be open" - break the shame cycle

**Final thought:** - "Remember - using AI well is a skill that requires your expertise" - "You're not being replaced - you're being amplified"

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