

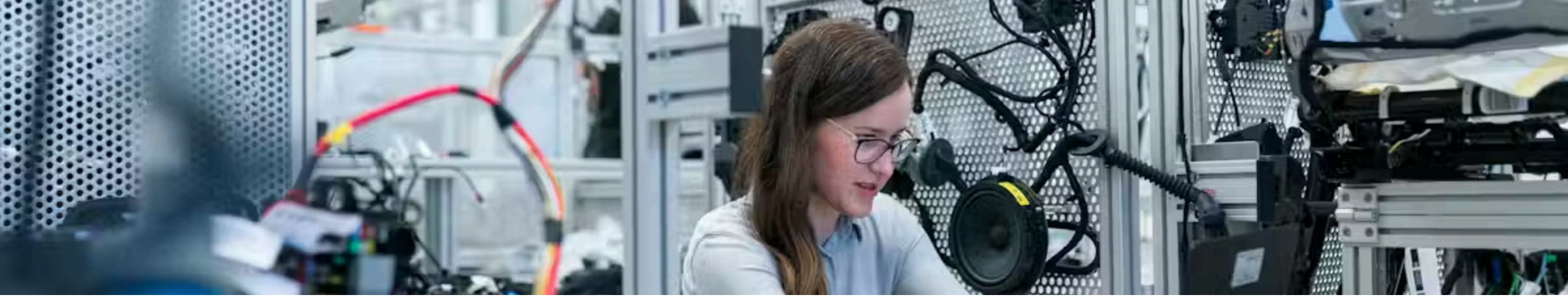
Ethical AI: Demonstrating Data Privacy & Bias Mitigation

Chris Hickman

The University of Alabama at Birmingham

3rd Thursday with AI – May 2025





Objectives & Overview



Understand ethical challenges

Privacy concerns in AI for nursing education



Apply ANA Code

Ethics principles in AI contexts



Identify bias

Recognition and mitigation strategies



Implement safeguards

Tools for secure, equitable AI use



Why This Matters

<10%

Schools with ethical guidance

Despite rapid AI classroom adoption

12%

**Nursing faculty confident in
explaining AI data use**

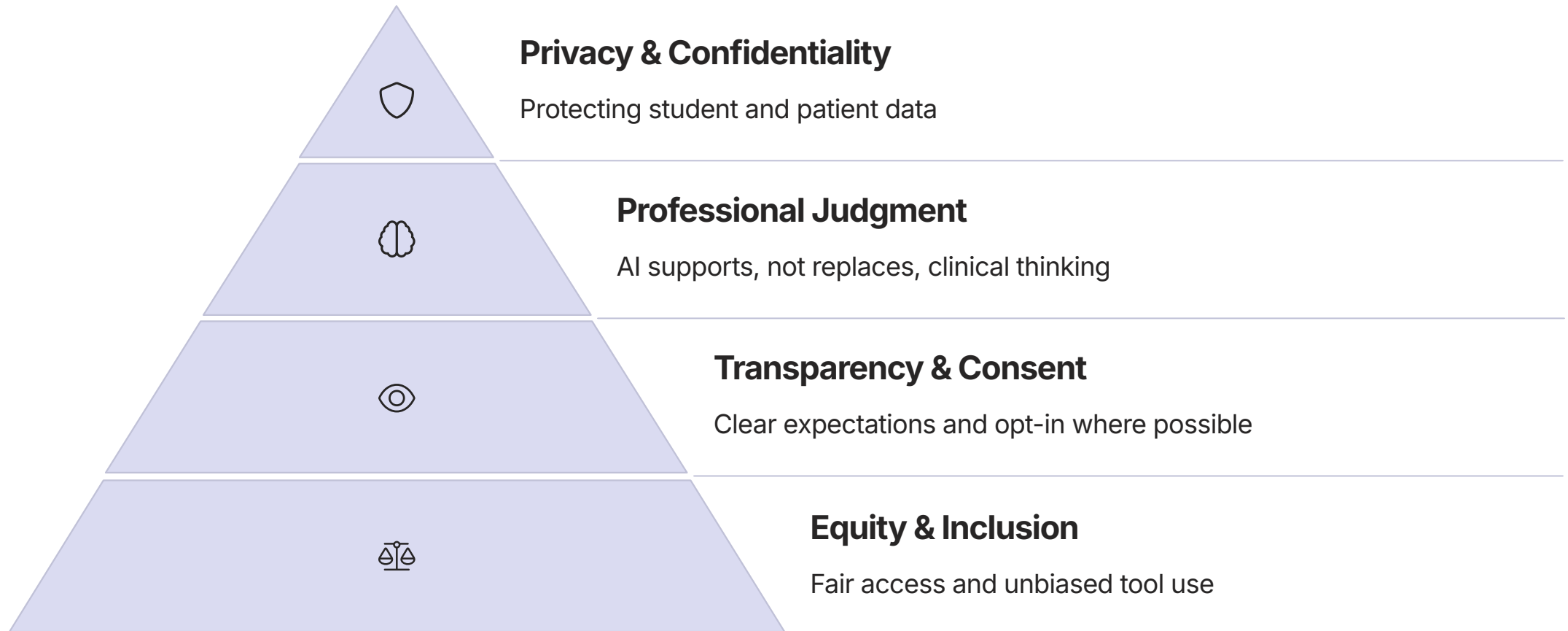
Only a small fraction understand how AI
tools collect and store information.

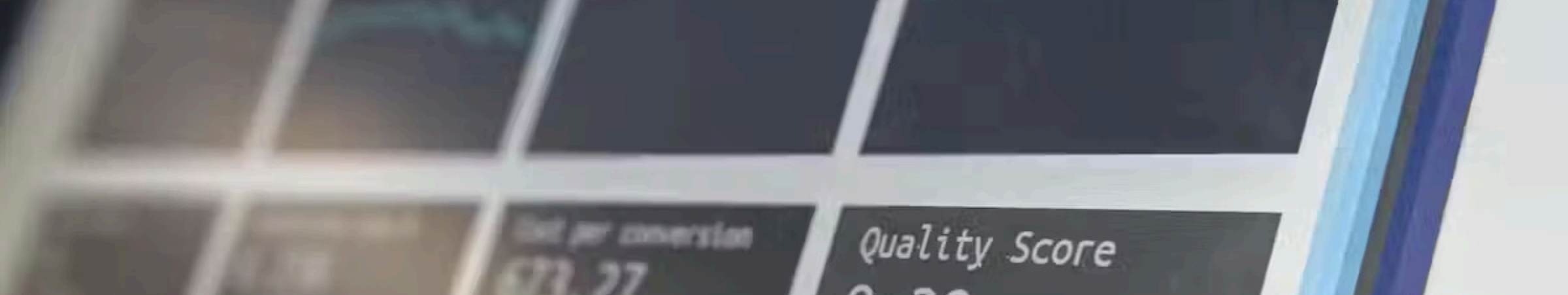
~70%

**Educators using AI without
formal guidance**

Most are using generative AI tools with no
policy or training in place.

Ethical Pillars of AI in Nursing Education





Data Privacy Risks

Regulatory Framework

FERPA for students, HIPAA for patients

Platform Storage

Most AI tools store inputs

Avoid PHI/PII in prompts

Best Practice

Use anonymized or fictional data

Follow "minimum necessary" rule

Policy Compliance

Check institutional guidelines

When in doubt, don't upload

What Not to Do (Example)

Avoid

Copy/paste a student assignment into ChatGPT for feedback

"When in doubt — don't upload it."

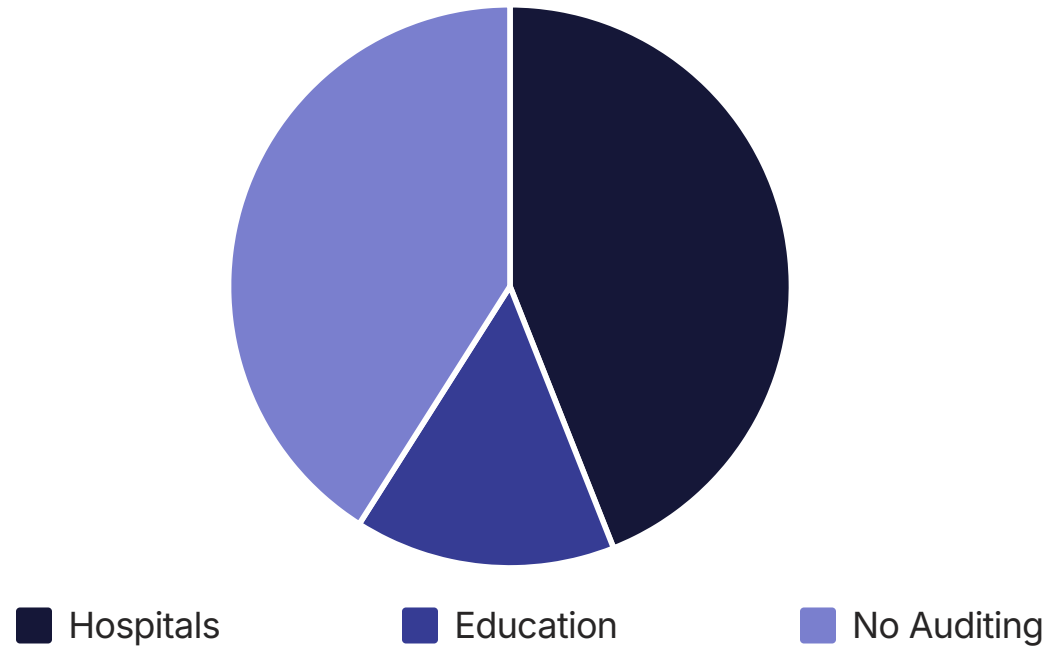
Instead

Reframe as a de-identified scenario for AI review

Understanding Bias in AI



Faculty Responsibility for Fairness



ANA: Biased AI contradicts nursing ethics

Ask vendors: What testing was done? How does it perform across groups?


```
41
42 @classmethod
43 def from_settings(cls, settings):
44     debug = settings.getbool("SUPERVISOR_DEBUG")
45     return cls(job_dir(settings), debug)
46
47 def request_seen(self, request):
48     self.request_fingerprint(request)
```

Applying the ANA Code of Ethics



Compassion

Don't let AI erode
human connection



Accountability

Verify AI-generated
recommendations



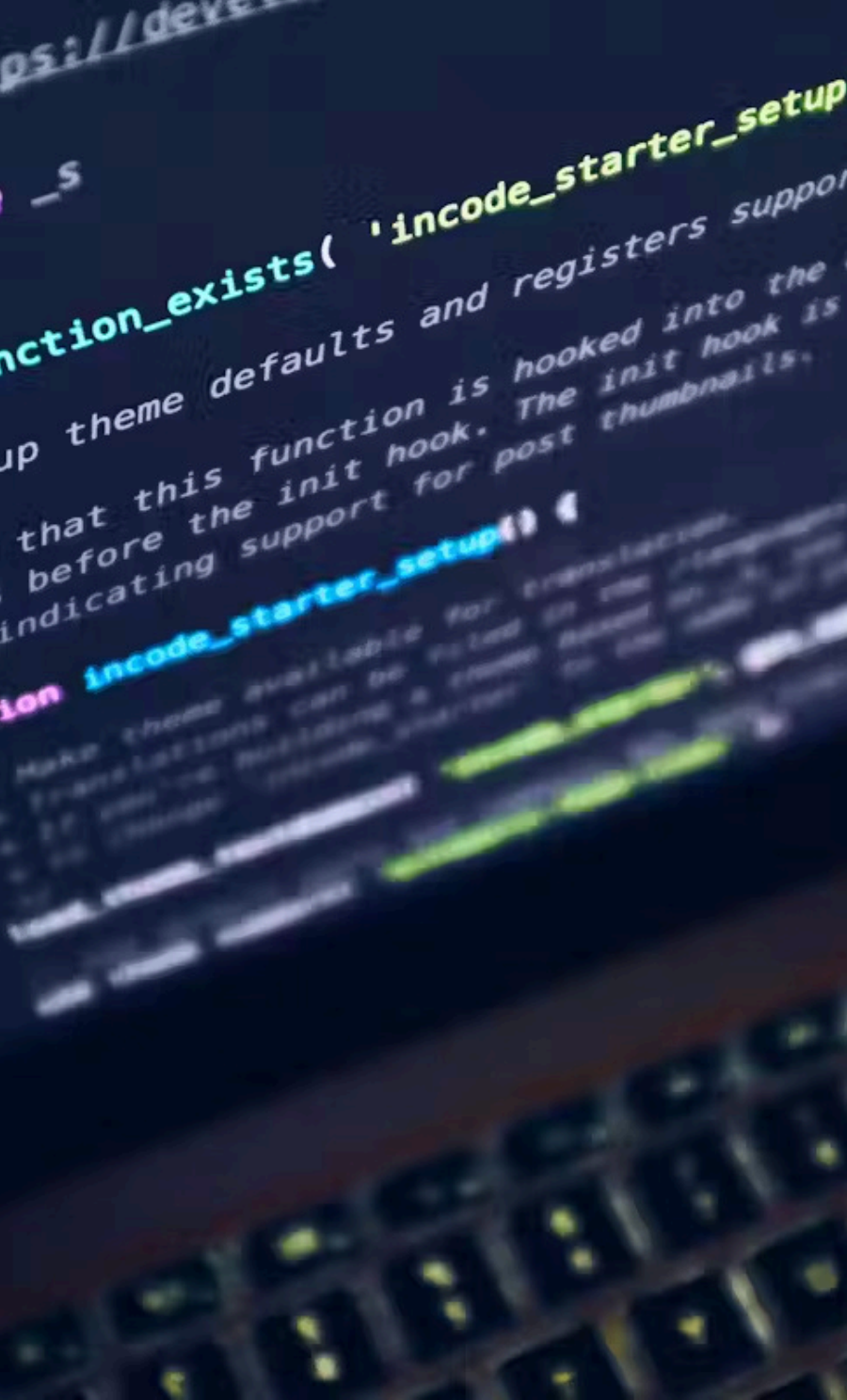
Justice

Prevent widening of
disparities



Dignity

Respect data beyond
legal compliance



Best Practices for Faculty

1

Set Expectations Early

Establish clear guidelines around acceptable AI use.

2

Use Transparent Assessment

Foster trust by disclosing how AI supports your instructional work.

3

Require Human Oversight

AI can support but not replace your clinical and academic judgment.

4

Design with Equity in Mind

Ensure all students can engage with or without AI access.

5

Teach Prompt Literacy and Critical Evaluation

Turn AI use into a teaching opportunity.

6

Keep It Human-Centered

Anchor AI use in the core values of nursing.

Promoting Equity in Access



Evaluate access

Do all students have equal AI tool availability?



Accommodate gaps

Address connectivity, device, familiarity barriers

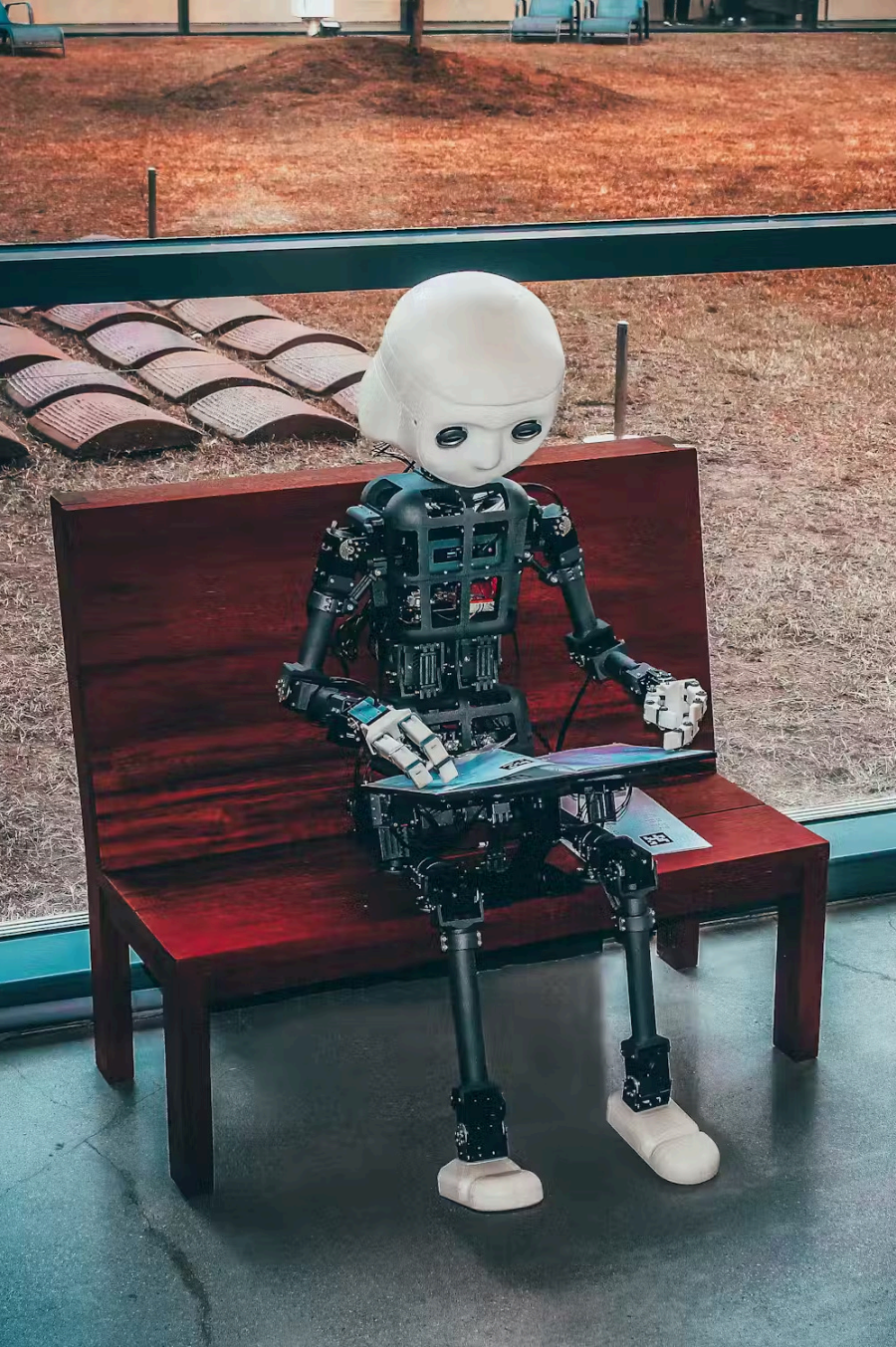


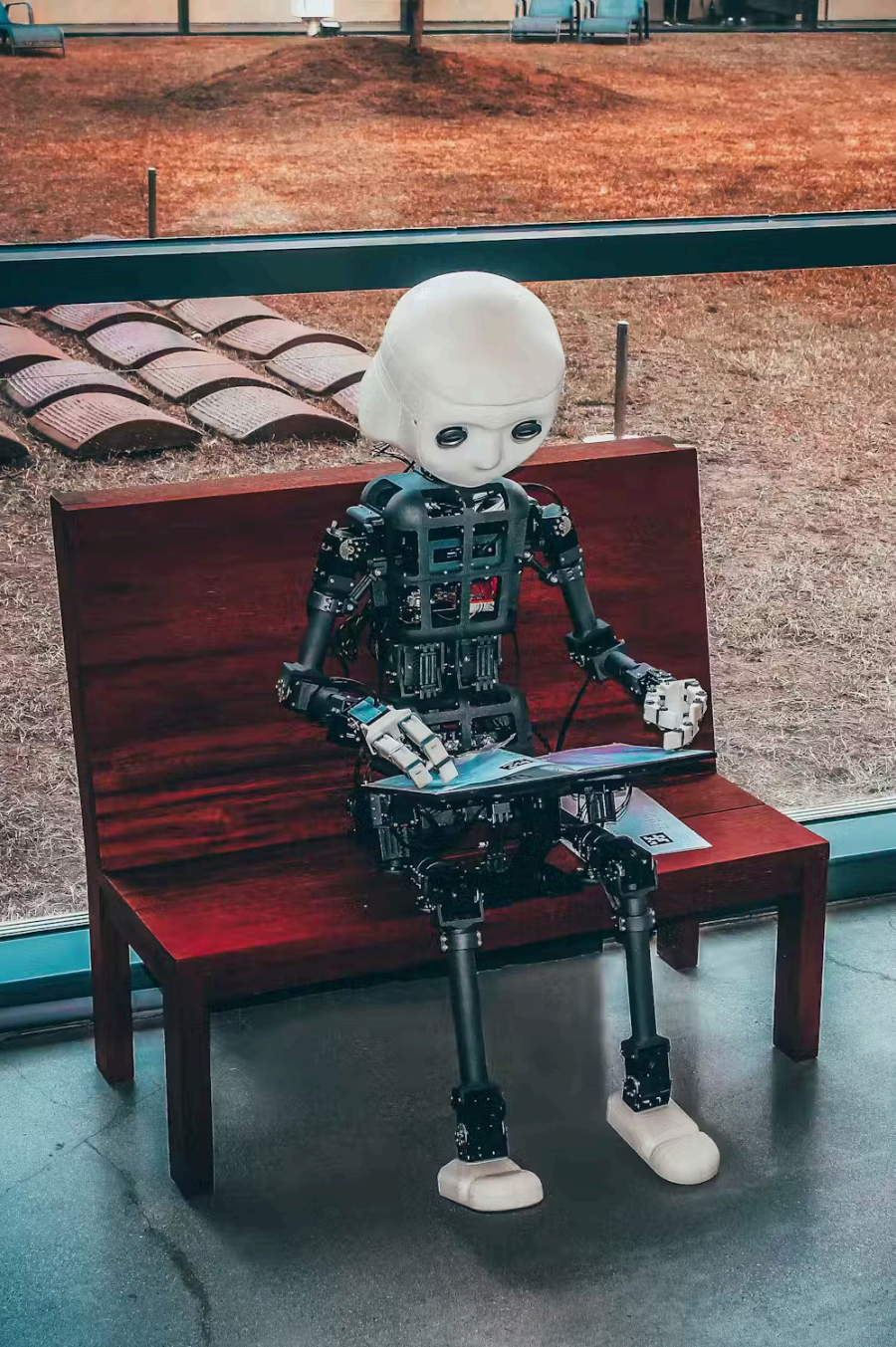
Choose inclusive tools

Select AI with language awareness and accessible design

Tools to Detect Bias & Protect Privacy

Tool	Purpose
IBM Fairness 360	Detects demographic bias
Microsoft Fairlearn	Assesses fairness across groups
Google What-If Tool	Tests input/output variations
LIME	Explains AI decisions
Anonymization Tools	HIPAA/FERPA compliance





Faculty Scenarios & Reflection



Investigate bias source

AI grading tool lowers scores for non-native English writers



Provide alternatives

Offer manual review option



Involve students

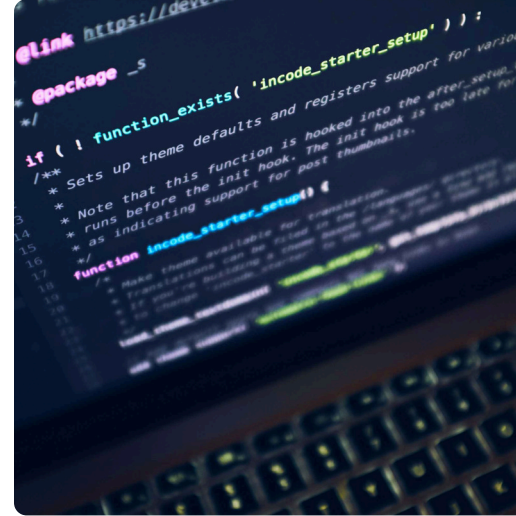
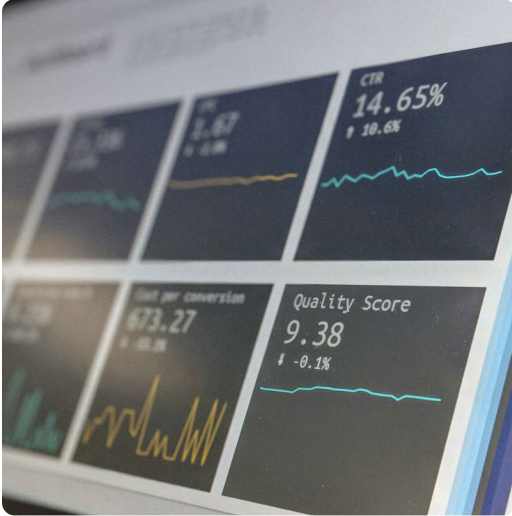
Reflect on tool limitations together



Monitor outcomes

Ensure equitable assessment for all

Final Takeaways

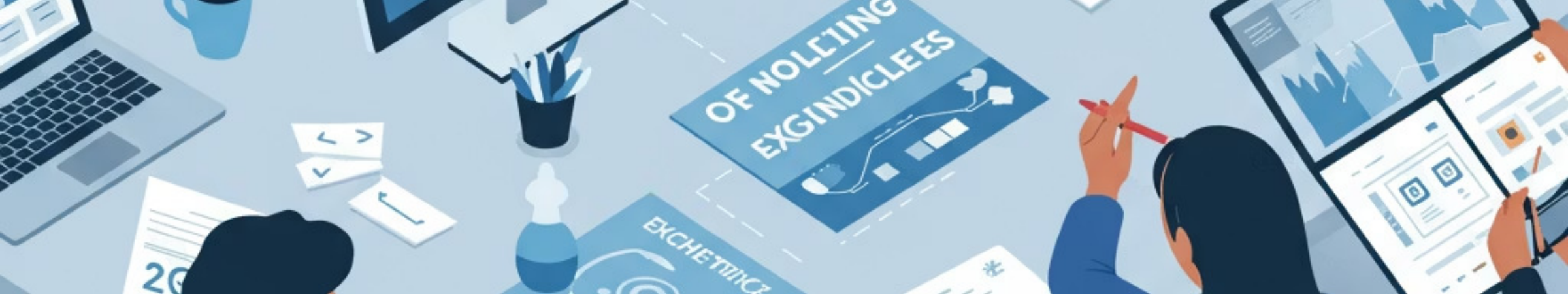


Ethical AI = privacy, fairness, critical thinking, accountability

Lead with integrity and vigilance

Teach students to question and verify AI

Begin with one step: review policy, test tool, revise prompt



Interactive Demonstrations: Ethics in Action

Now let's move from theory to practice with five hands-on demonstrations that bring ethical AI principles to life.

1. **Privacy in Prompting:** See how to rephrase prompts using de-identified data to protect student privacy.
2. **Bias in AI Feedback:** Witness how AI responds differently to academic jargon versus conversational English.
3. **Transparency in Grading:** Learn to ethically integrate AI in rubric development while maintaining trust.
4. **Equity in Simulation:** Observe how default scenarios perpetuate biases unless we intentionally intervene.
5. **Interrogating Algorithms:** Discover practical tools to question AI systems without technical expertise.

Next Steps

Stay tuned for upcoming sessions in this series, where we'll delve deeper into specific AI tools and their applications in nursing education.

WELCOME TO THE 3RD THURSDAY WITH AI!

MAY through DECEMBER 2025

May 15
Ethical AI: Demonstrating Data Privacy & Bias Mitigation

June 12*
AI & Mental Health

July 17
AI for Administration: Scheduling, Resource Allocation & Forecasting

August 21
Future Tech: AR, VR, & XR Powered by AI

September 18
Curriculum Integration: Step-by-Step Implementation of AI Tools

October 16
Student Success: Early Alerts, Chatbots & Personalized Support

November 20
Telehealth: AI-Enabled Remote Nursing Education & Collaboration

December 18
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*2nd Tuesday due to Juneteenth holiday

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