The Augmented Knowledge Worker in Higher Education

When did you last redesign your work?

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1. When Did You Last Redesign Your Work?

Not just adopted a new tool — but genuinely stepped back and asked:

"What is the best possible way for me to do this job, given everything now available to me?"

“The most consequential shift in higher education today is not technological — it is organizational.”

2. Why the Conversation Is Urgent Now

15%

of organizations use AI to fundamentally redesign work

(World Economic Forum/Accenture, March 2026)

$4.8T-$6.6T

potential US economic gain from knowledge worker augmentation by 2034

(Pearson, December 2025)

1B+

Global AI users in 3 years – fastest technology adoption in history

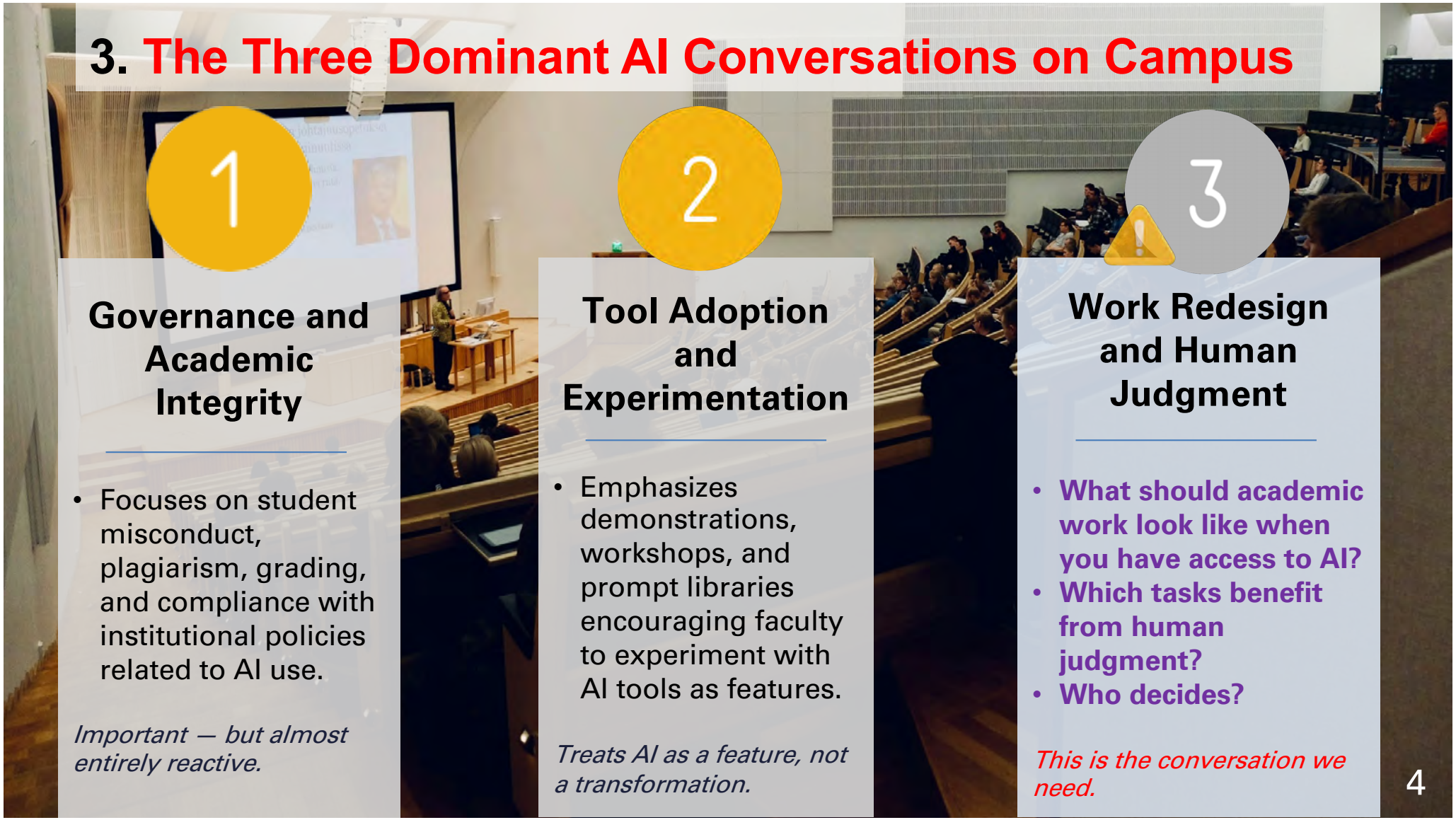
(Pearson, December 2025)

The gap between **experimentation** and **transformation** is precisely where most Canadian post-secondary institutions sit today.

- That potential is only realized if organizations couple AI adoption with genuine investment in **human learning** and **workforce redesign**.
- Without that, the gap between technology investment and human capability simply widens. Pearson calls this the "**learning gap**."

1. Organizational Transformation in the Age of AI: How Organizations Maximize AI's Potential. World Economic Forum/Accenture.
2. Mind the Learning Gap: The Missing Link in AI's Productivity Promise. Pearson. https://www.pearson.com/ai-learning-gap

3. The Three Dominant AI Conversations on Campus



1 Governance and Academic Integrity

- Focuses on student misconduct, plagiarism, grading, and compliance with institutional policies related to AI use.

Important — but almost entirely reactive.

2 Tool Adoption and Experimentation

- Emphasizes demonstrations, workshops, and prompt libraries encouraging faculty to experiment with AI tools as features.

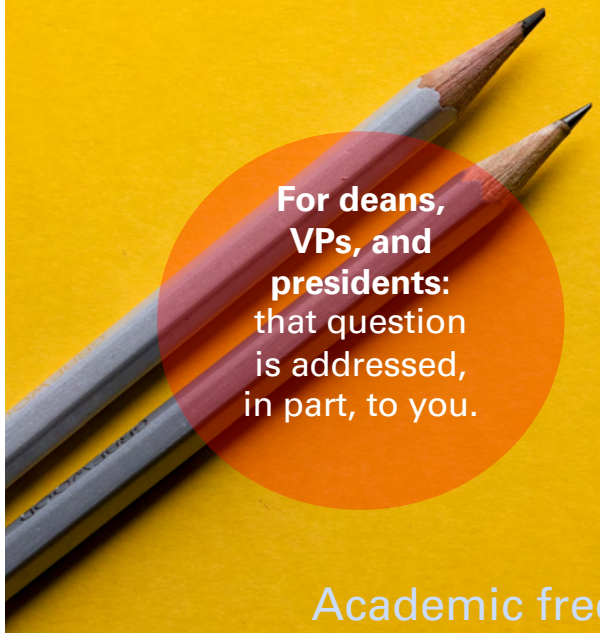
Treats AI as a feature, not a transformation.

3 Work Redesign and Human Judgment

- **What should academic work look like when you have access to AI?**
- **Which tasks benefit from human judgment?**
- **Who decides?**

This is the conversation we need.

4. Who Gets to Decide?



For deans, VPs, and presidents: that question is addressed, in part, to you.

"If AI is going to reshape our workplaces, who gets to decide how it's used — the people who do the work, or the people who purchase the software? That is a really important question."

Marcia Steeves
President for OPSEU/SEFPO Local 351 (Fleming College, ON)
"Will Artificial Intelligence change your work?", An OPSEU/SEFPO Webinar
March 10, 2026

Academic freedom, workload protections, data rights, and the right to meaningful human oversight of automated systems are not obstacles to AI adoption. **They are the foundations of responsible adoption.**

AI is already here, on your campuses, right now — whether your institution has a policy or not. **The question is whether faculty encounter it with adequate support and institutional backing.**

5. The Six Dimensions of Academic Augmentation

(i.e., what AI could enable for the augmented knowledge workers):

1. Codifying and preserving institutional knowledge
2. Using AI as a thinking partner for research and curriculum design
3. Orchestrating multi-agent AI workflows
4. Supporting rapid, in-the-flow professional learning
5. Enabling personalized, opt-in coaching for educators
6. Designing effective human–AI teamwork at scale

Evidence-Based Framework

The six dimensions are grounded in observed organizational practice, not vendor hype.

Interrelated and Cumulative Dimensions

Dimensions like codification, ideation, collaboration, learning, coaching, and teamwork build on each other for real impact.

Pragmatic Approach to AI Integration

Focus on practical, nuanced changes in work supported by credible research sources.

Dimension 1: Codifying and Preserving Institutional Knowledge

Tacit Knowledge Challenges

Tacit knowledge in academia often remains undocumented and risks being lost due to staff turnover or retirement.

AI as Institutional Memory

AI systems trained on policies create a searchable memory that delivers timely guidance and reduces errors.

Leadership and Risk Reduction

Preserving knowledge with AI supports leadership goals by reducing risks and maintaining institutional capacity.

Equity and Quality Improvement

Breaking knowledge silos enhances equity and quality across large, decentralized academic institutions.

5.1. Coding and Preserving Institutional Knowledge

E.g., AI in the Service Hub at Seneca Polytechnic

Enhancing Student Support with Salesforce Einstein AI

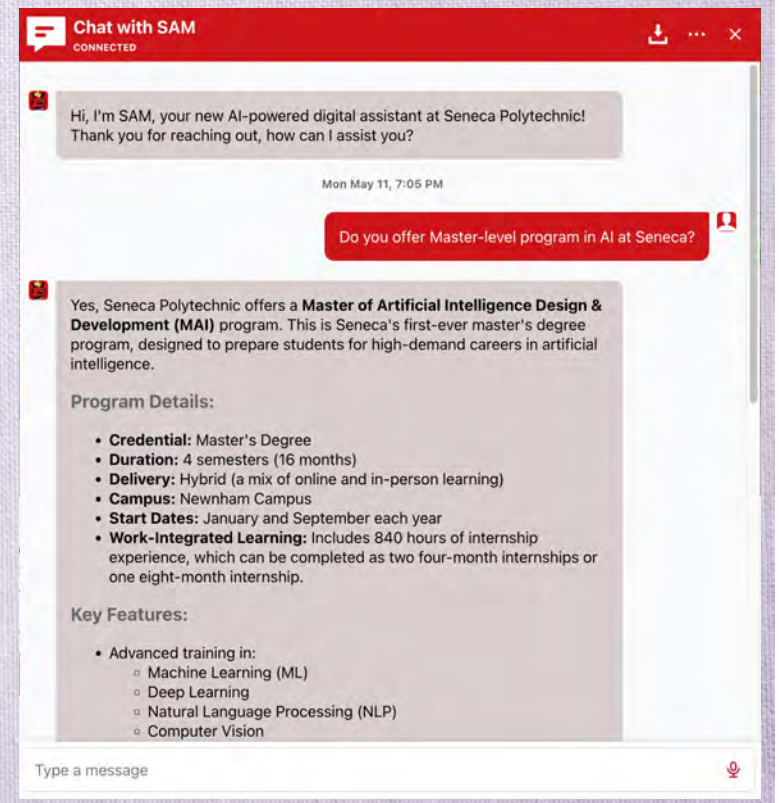
- AI is integrated into the Service Hub to support student email and live chat responses.
- The AI leverages over **1,600 knowledge base articles** to generate accurate and consistent responses.
- Highly effective during the December school closure when student staff manage support queues.
- Helps student employees respond effectively without deep domain knowledge, reducing delays.
- Allows regular staff to focus on complex cases and escalations.
- Additional AI capabilities include:
  - Automatic email summaries for cases with lengthy back-and-forth communication.
  - **Generation of new knowledge base articles for recurring issues where documentation did not previously exist.**

5.1. Coding and Preserving Institutional Knowledge

E.g., Sam the GenAI Bot at Seneca Polytechnic

AI-Powered Student Support on the Public Website

- "Sam," the college's website chatbot, was upgraded to a Generative AI bot in early 2025.
- Powered by the same knowledge base used by Salesforce Einstein AI for consistent and accurate responses.
- Handles approximately **25,000 student interactions per month** with a **very high success rate**.
- Available directly on the public website to provide fast, accessible support for students.
- **Automatically transfers complex issues to a live agent or creates a service case on behalf of the student when escalation is required.**



Dimension 1: Codifying and Preserving Institutional Knowledge

Other Examples

LearnWise Pilots from Jisc (UK)

Secure large language models process institution-specific content to support students and staff without data exposure.

AI Task Force at University of Toronto (Canada)

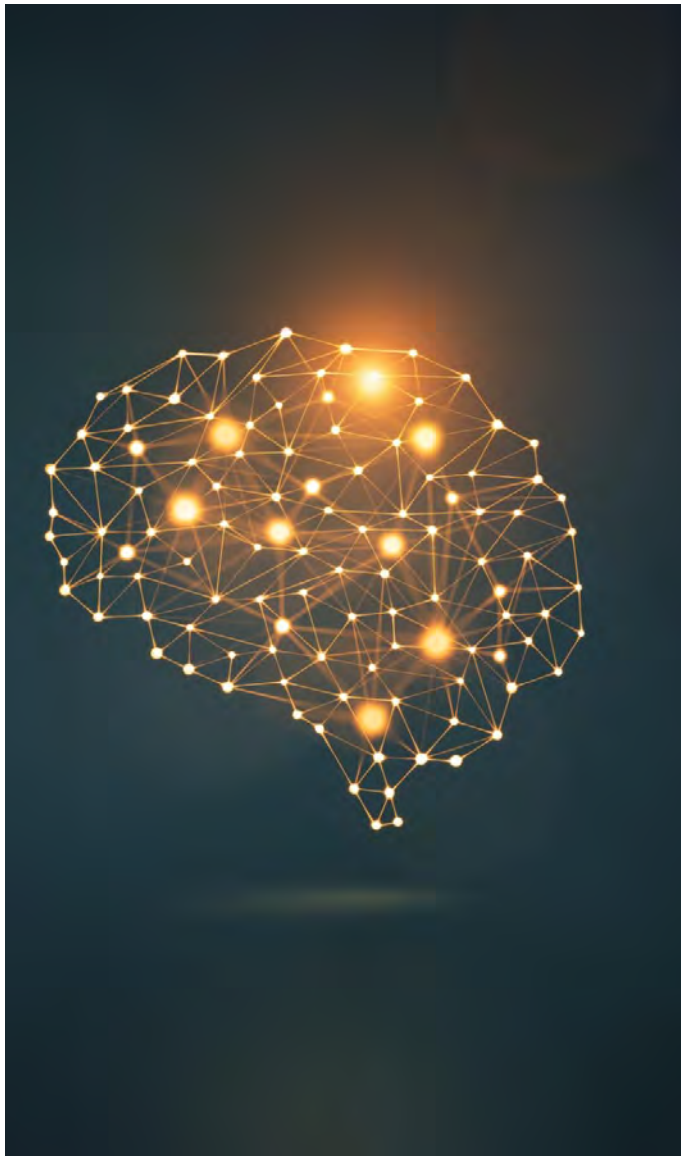
Codifying research workflows improves consistency and reduces hidden labour in academic administration.

Troby AI Agent from La Trobe University (Australia)

It answers staff policy queries accurately, reducing informal networks and office overload.

Focus on Governance and Support

Clear governance, citation-enabled responses, and focus on support enhance knowledge flow and responsible AI use.



Dimension 2: AI as a Thinking Partner

AI Enhances Human Inquiry

AI expands human inquiry by accelerating research tasks without replacing judgment or interpretation.

Applications in Academia

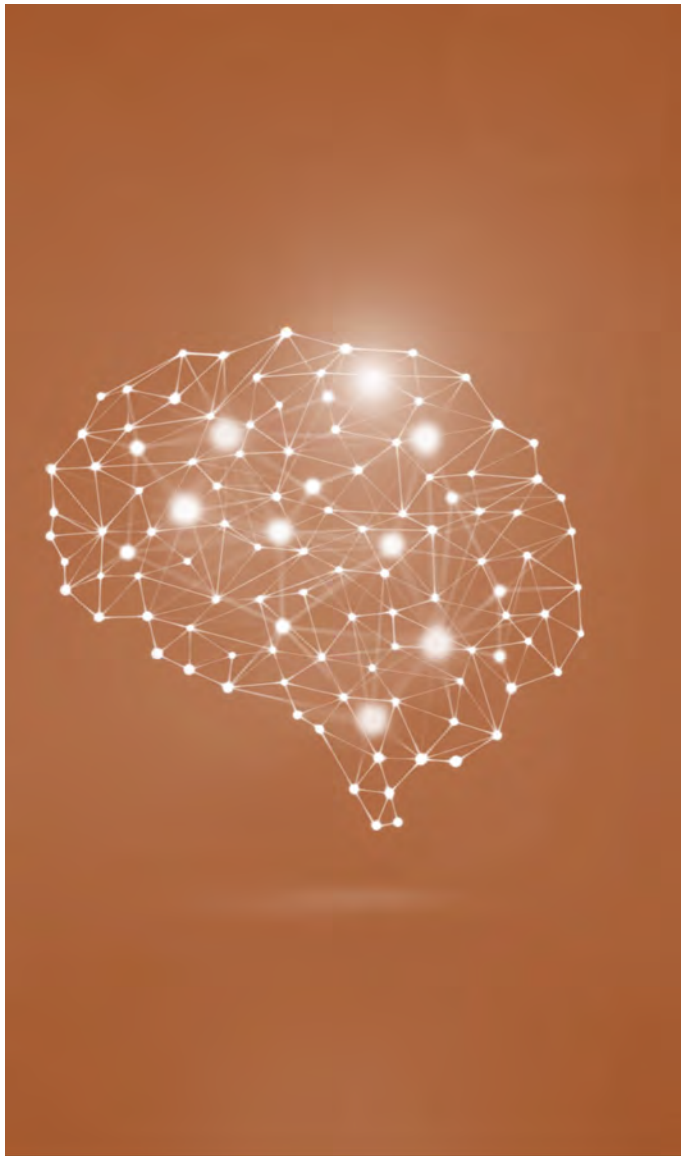
AI aids **program design** and **research planning** by synthesizing curricula and surfacing methodological patterns.

Impact on Productivity

AI significantly reduces time-to-market and improves research productivity during early-stage ideation.

Equitable Access and Support

Leaders should ensure equitable AI access and support to maintain intellectual rigor and reduce cognitive load.



Dimension 2: AI as a Thinking Partner

50%
reduction in time-to-market for new programs & products

(World Economic Forum/Accenture, March 2026)

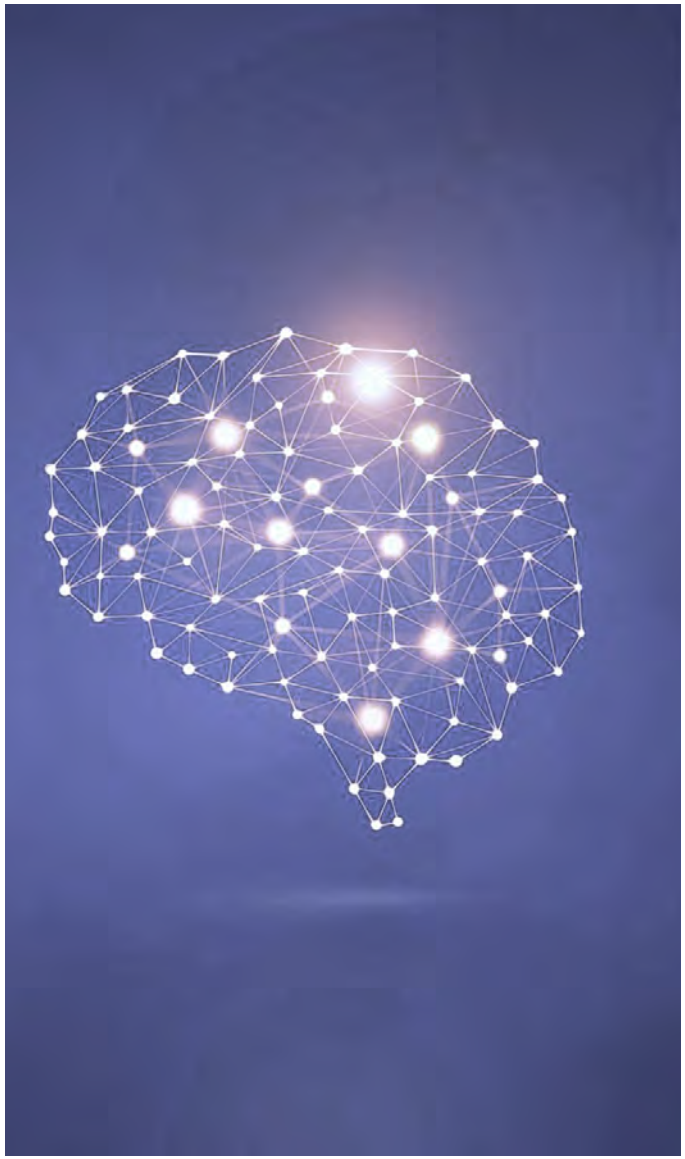
30-50%
improvement in R&D productivity

(World Economic Forum/Accenture, March 2026)

20-80%
acceleration in research cycle times

(World Economic Forum/Accenture, March 2026)

AI dramatically expands what you can think about. It changes the starting point of inquiry, not the quality of the inquiry itself.



Dimension 2: AI as a Thinking Partner

Safeguarding Academic Judgment in Ideation

Human Responsibility in Scholarship

Peer review and interpretive depth remain human tasks essential for maintaining academic rigor and ethical standards.

AI as a Preparatory Tool

AI helps accelerate preliminary synthesis but does not replace evaluation of significance or originality by humans.

Training for Critical AI Use

Faculty need training to effectively critique AI outputs, reinforcing metacognitive skills crucial for scholarly work.

Cultural Norms Protecting Judgment

Institutions must foster cultural norms and workload models valuing interpretation and critical thinking over volume.

5.2. AI as a Thinking Partner

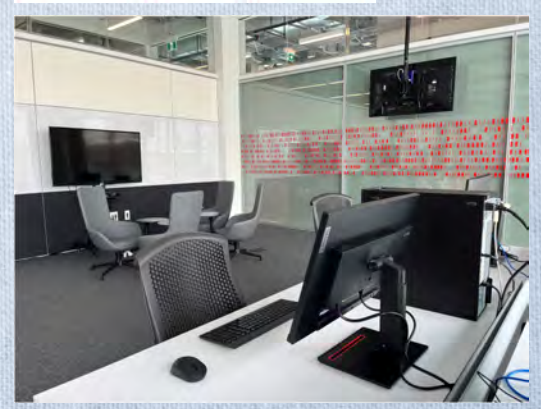
E.g., AI Lab Initiative at Seneca Polytechnic

Advancing AI Innovation and Education

- Seneca Polytechnic has launched a new AI Lab in March 2026 to support training, collaboration, and generative AI innovation.
- The lab serves as a central hub for developing and sharing AI projects across the institution.
- This initiative reinforces Seneca's commitment to becoming a leader in AI adoption within higher education.
- Microsoft is a key collaborator, providing cloud and AI technologies to support the lab's activities.

Benefits

- Access to cutting-edge AI tools and technologies.
- Opportunities to work on real-world AI projects.
- Hands-on experience to enhance career readiness in AI-driven industries.
- **Used widely by students and employees**



Dimension 3:
Multi-Agent AI Collaboration

AI as Research Team Members

AI agents act like team members handling tasks such as literature review and drafting under human guidance.

Improved Task Performance

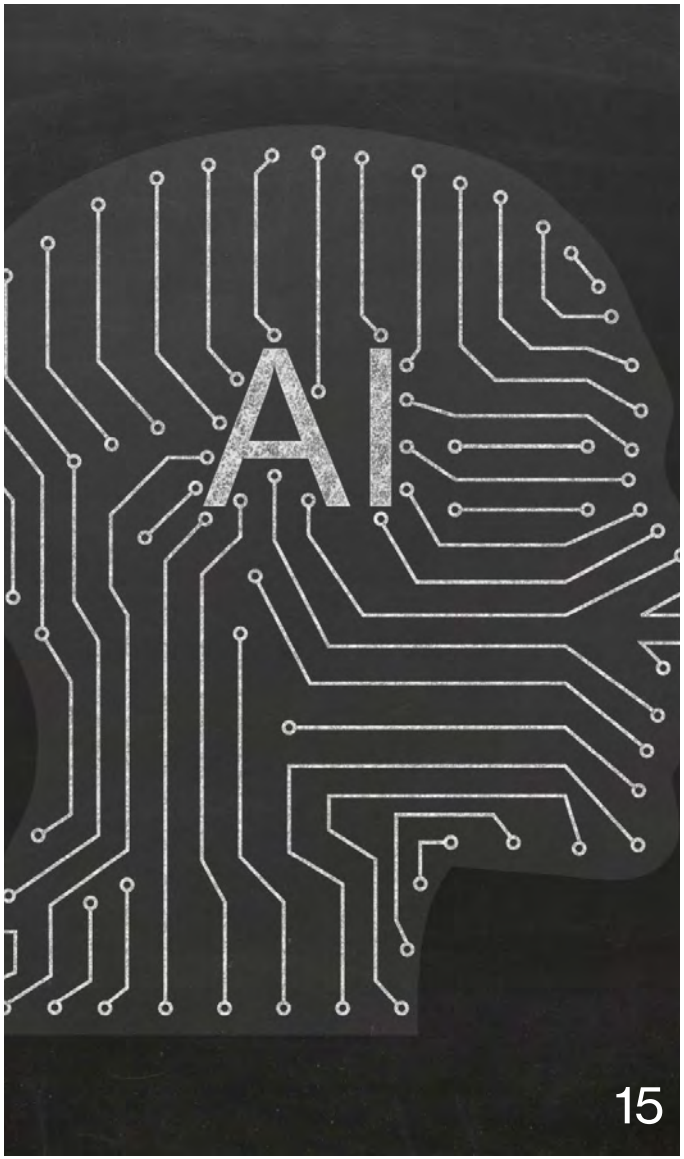
Separating planning, critique, and synthesis among AI agents improves performance on complex academic tasks.

Human Orchestration Importance

Human academics direct and integrate AI outputs, maintaining intellectual authority and oversight.

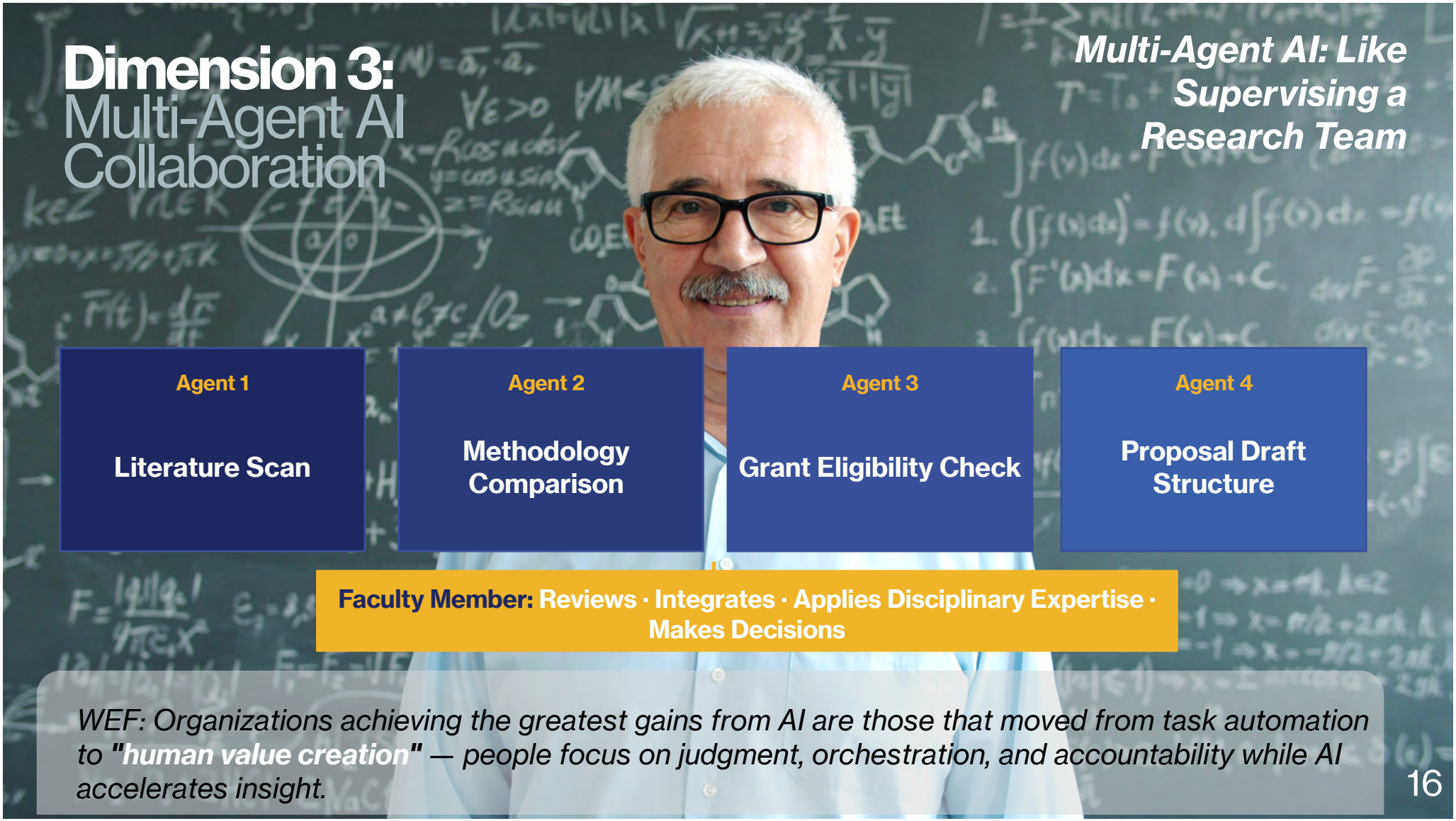
Collaborative AI Use Model

Effective AI use is designed for collaboration, aligning with academic teamwork and peer review norms.



Dimension 3:
Multi-Agent AI Collaboration

Multi-Agent AI: Like Supervising a Research Team



Agent 1
Literature Scan

Agent 2
Methodology Comparison

Agent 3
Grant Eligibility Check

Agent 4
Proposal Draft Structure

Faculty Member: Reviews · Integrates · Applies Disciplinary Expertise · Makes Decisions

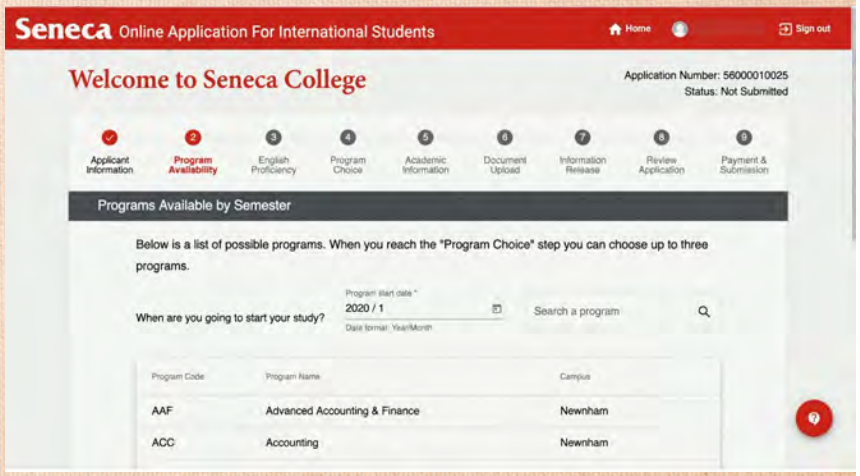
*WEF: Organizations achieving the greatest gains from AI are those that moved from task automation to **"human value creation"** — people focus on judgment, orchestration, and accountability while AI accelerates insight.*

5.3. Multi-Agent Collaboration

E.g., AI in Student Application Processing at Seneca

Using AI to Fast-Track Student Applications

- Two AI agents are being implemented to accelerate application processing.
    1. An AI validation agent will automatically screen applications for completeness.
        - Missing information is automatically identified and communicated to applicants.
    2. A second AI agent will extract grades from uploaded image files.
        - International applicant grades will be automatically entered into the student system.
- **Reduces manual data entry and improves processing efficiency.**



Dimension 4: Learning in the Flow of Work

Traditional Model ✗

Occasional workshops
Summer institutes
Conference here and there
Assumption: faculty learned everything in grad school

In a period of rapid technological change — this is actively inadequate.

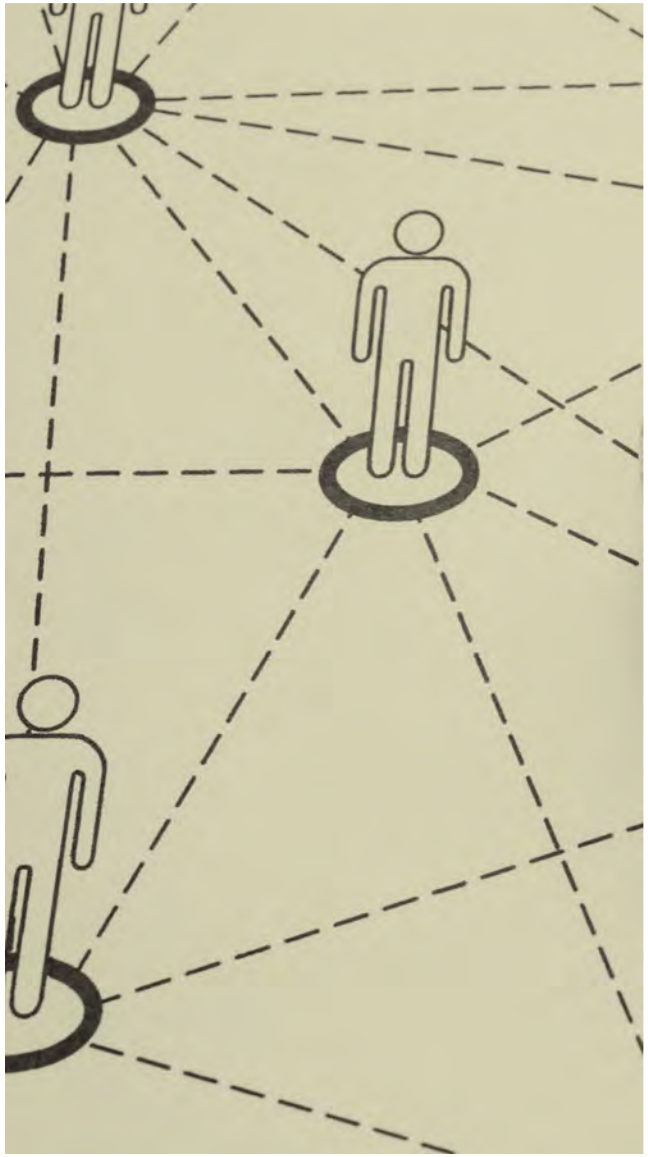
Learning in the Flow ✓

Pearson's key insight: the most important shift is not the content of training, but its timing and integration.

AI can say: "I'm doing this task for you — here's a short piece of learning you need right now."

Learning and doing become indistinguishable.

For VPs & Deans: The single most important variable in whether learning culture takes hold is **visible leadership modeling**. Your faculty are watching how you engage with AI. You cannot delegate this.



Dimension 4: Learning in the Flow of Work

Continuous Learning Model

Rapid, ongoing learning embedded directly into work enhances skill development in fast-changing environments.

AI-supported Just-in-Time Learning

AI provides real-time explanations, examples, and resources as tasks are performed to support learning.

Self-Directed Academic Exploration

Faculty explore new teaching methods autonomously while designing courses, fostering academic independence.

Shift to Continuous Capability Building

Leaders transition from episodic training to ongoing development for sustained organizational growth.

Dimension 4: Learning in the Flow of Work

From Training Events to Learning Systems

Continuous Learning Environments

Institutions need to create environments where learning is ongoing, contextual, and supported by infrastructure.

Micro-Learning Success Examples

Examples from Vanderbilt and Penn State show effective micro-learning embedded in faculty workflows.

Shift in Investment Priorities

Leaders are encouraged to move resources from isolated workshops to platforms supporting ongoing development.

Learning as Infrastructure

Framing learning as infrastructure supports moving from pilot programs to durable, scalable systems.

5.4. Learning in the Flow of Work

E.g., Departmental AI Agents at Seneca

- **Departmental AI Agents**
  - Campus Service and other depts developed AI agents to support staff with backend administrative tasks related to student services.
- **Faster Access to Procedures**
  - Employees can instantly retrieve the exact steps and commands instead of searching SharePoint documents.
- **Integrated in MS Teams**
  - Embedded directly in Teams, the agents provide real-time, step-by-step guidance within employees' workflows.
- **Expanding Across Departments**
  - Adoption is growing as departments use AI to improve efficiency and reduce manual effort.

Dimension 5:
Personalized, Ethical Coaching

Mentorship Inequities Persist

Access to meaningful guidance is uneven – particularly for early-career and equity-deserving faculty.

AI Expands Access to Feedback

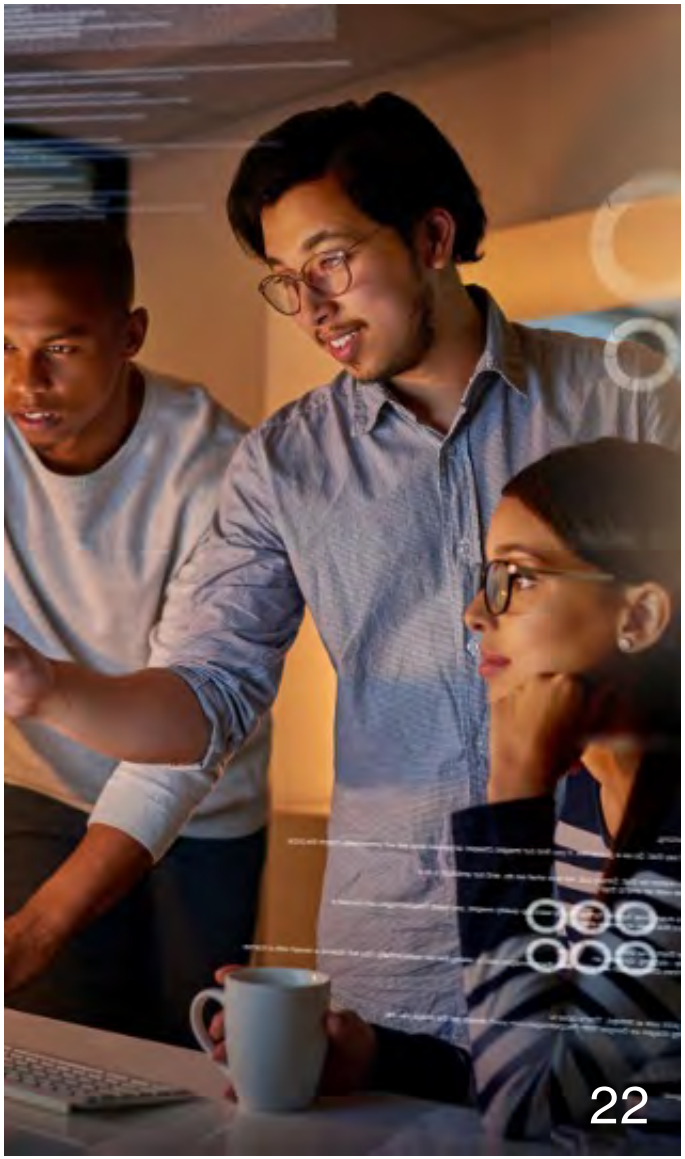
Provides scalable, real-time, and actionable support to complement human mentorship.

Impact Depends on Ethical Design

Must be opt-in, transparent, and faculty-controlled to avoid becoming surveillance.

Leadership Choice Matters

Designed well, AI advances equity and trust; designed poorly, it reinforces bias and erodes culture.



5.5. Personalized, Ethical Coaching

E.g., AI-Powered Voice Interaction Training at Seneca

Real-Time AI Simulations for Student Learning

- Voice-based AI interaction is being used in mock job interview training through Seneca Works
- **Students can practice interview skills in interactive AI-driven scenarios that simulate real workplace conversations.**
- AI simulations are also used in hospitality and front-end operations training, including roles such as:
  - Front desk clerks
  - Reservation managers
  - Dental office clerks
- The AI generates dynamic customer-service scenarios requiring students to respond effectively in real time.
- Currently used in programs such as Aviation and other career-focused disciplines.

InStage + Microsoft Azure OpenAI

Dimension 6: Seamless Human-AI Teamwork

Human-in-the-Lead, Not Just in the Loop

Human-in-the-Loop Model

Humans occasionally check AI outputs, maintaining minimal oversight over automated processes.

Human-in-the-Lead Model

Humans define goals, constraints, and accountability, leading AI systems with ethical judgment.

Higher Education Alignment

Higher education should adopt human-in-the-lead to preserve responsibility and academic values.

Governance and Trust

Governance frameworks must include escalation paths and override rights to foster trust.

Dimension 6: Seamless Human-AI Teamwork

Human-in-the-Lead, Not Just in the Loop

What the Best Deployments Have in Common

1. What decisions must remain human?
2. What information should AI escalate or route to a human?
3. Where are the ethical and institutional boundaries of the system?

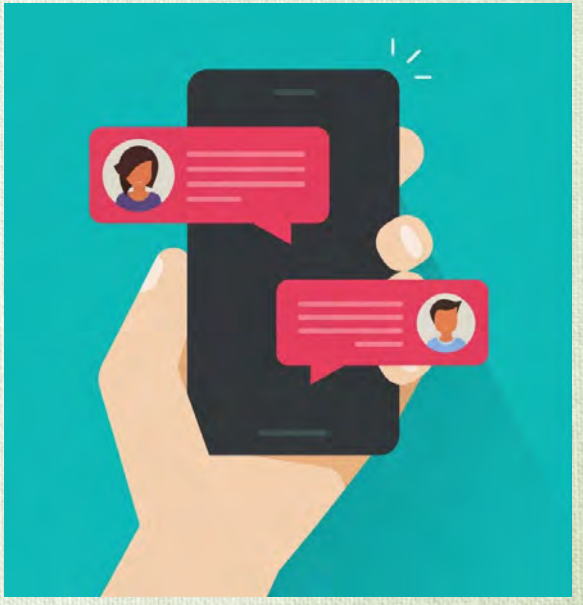
These were built into the architecture before going live — not added after problems emerged

5.6. Seamless Human-AI Teamwork

E.g., AI in Student Recruitment at Seneca

AI Student Recruitment Agent

- Launched in 2026 to support enrolment outreach.
- Replaced applicant phone calls with personalized AI text conversations.
- Trained on Seneca systems, processes, and enrolment pathways.
- Runs as a 4-week enrolment campaign.
- Performs transactions and creates support cases automatically.
- **Escalates complex cases to specialized staff teams.**
- Staff now focus on higher-value support → improved morale.
- Employees can monitor and intervene in AI conversations.
- Reached nearly **11,000 unique students** efficiently.



5.6. Seamless Human-AI Teamwork

E.g., AI in Student Recruitment at Seneca

"The AI agent is not just a chatbot—it performs transactions, creates support cases, and seamlessly escalates to staff when needed. **This has allowed our employees to move from repetitive outreach to higher-value support, improving both efficiency and morale.**"

Radha Krishnan

Vice President, Students and CIO

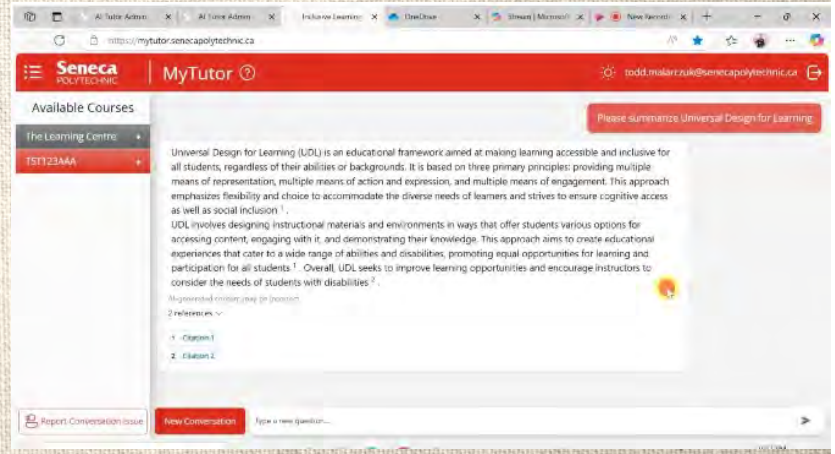
Seneca Polytechnic

5.6. Seamless Human-AI Teamwork

E.g., AI Tutor at Seneca

Extending Learning Beyond the Classroom

- Seneca's AI Tutor (MyTutor) is used in 100+ course sections.
- Integrates OpenAI GenAI with instructor-provided course materials.
- Supports faculty by extending student learning beyond class time.
- **Trained only on instructor-approved course content.**
- Helps students by:
  - Answering course questions
  - Finding learning materials
  - Preparing for quizzes
  - Providing personalized support
- Translates content into multiple languages for accessibility.
- **Handles high volume of student queries, freeing instructors for deeper relational work.**



Video: Meet Jill Watson

YouTube:

https://www.youtube.com/watch?v=9mbTkmC9_s4

Jill Watson

RAG-based AI TA anchored to course-specific materials. Course-bounded, human-reviewed, with clear escalation paths. Handles high volume of student queries, freeing instructors for deeper relational work.

Developed by: Georgia Tech

User: Georgia Northwestern Technical College

YouTube:
https://www.youtube.com/watch?v=9mbTkmC9_s4

Leadership Modeling and Learning Culture

Leadership Engagement

Visible leader participation in learning legitimizes experimentation and encourages others to adopt new practices.

Institutional Priorities Signaling

Leaders' actions communicate the institution's priorities, influencing adoption and cultural change.

Modeling Trust and Collaboration

In collegial governance, leaders sharing learning and uncertainty builds trust and fosters a collaborative culture.

6. Governance as Enabler, Not Obstacle

Responsible AI governance does not mean risk elimination. It means risk management in service of institutional values.

1

Human Accountability at Scale

Decision ownership, autonomy thresholds, and escalation paths defined before deployment — not after.

2

End-to-End Operating Model Redesign

AI is embedded in workflows, not layered on top of existing processes.

3

Scalable Talent Systems

Investment in ongoing learning, new roles like AI product owners, and performance measures that reward adaptation.

4

Transparency-Driven Trust

AI behavior is understandable, boundaries are clear, and governance evolves with the technology.

5

Disciplined Experimentation

Failures are expected, contained, and learned from rather than hidden.

Source: WEF/Accenture White Paper on Organizational Transformation, March 2026

6. Governance as Enabler, Not Obstacle

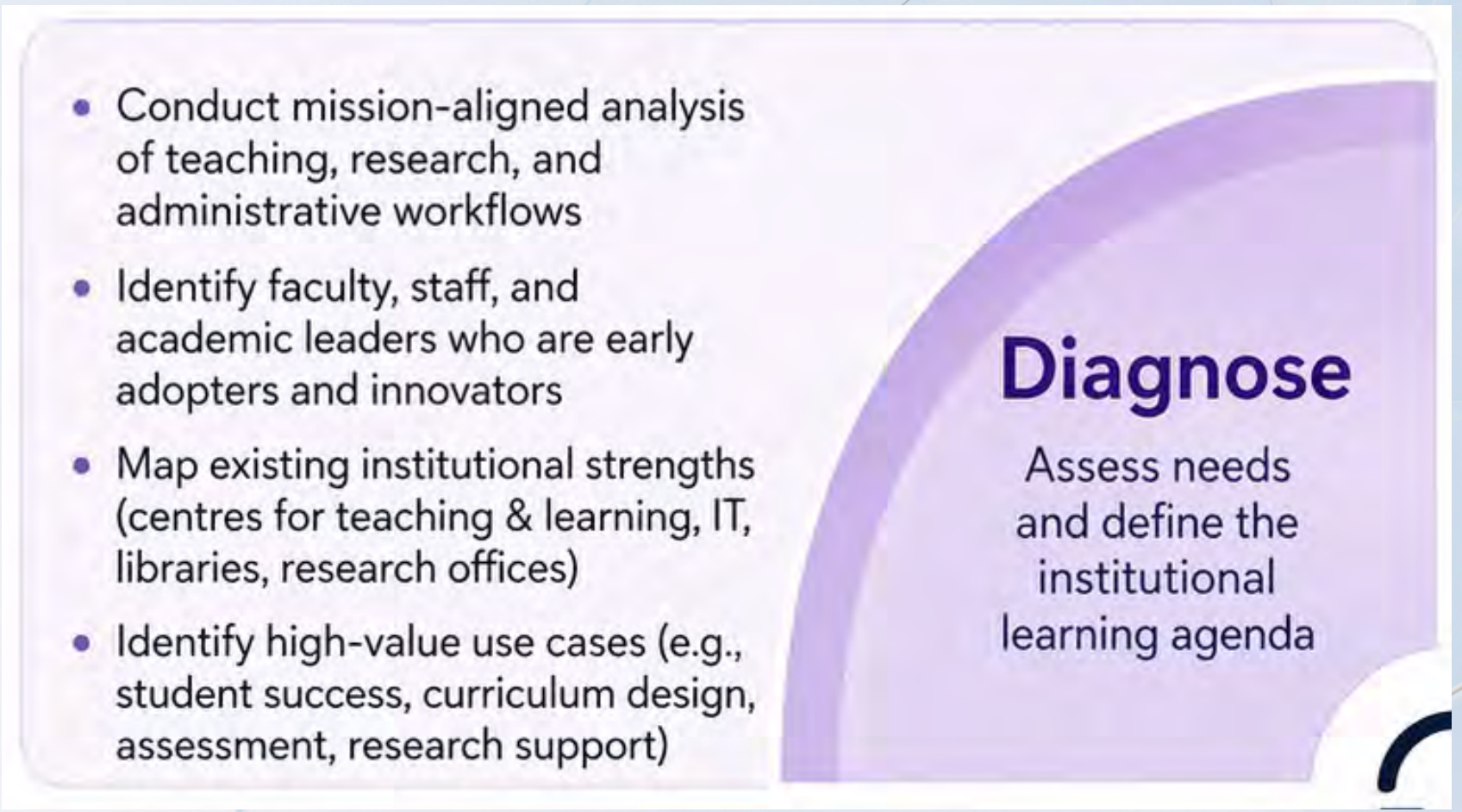
What Good AI Governance Looks Like in Higher Education

- ✓ Define human roles, escalation paths, and decision rights before deploying AI — not after problems emerge.
- ✓ Embed AI in redesigned workflows rather than layering it on top of existing processes.
- ✓ Ensure faculty and staff retain the right to override or escalate AI-generated decisions in high-stakes contexts.
- ✓ Engage faculty associations and unions as collaborators — their governance demands are often good institutional design.
- ✗ Avoid blanket bans and fear-based policies: they suppress experimentation, undermine trust, and kill the learning culture needed for responsible adoption.

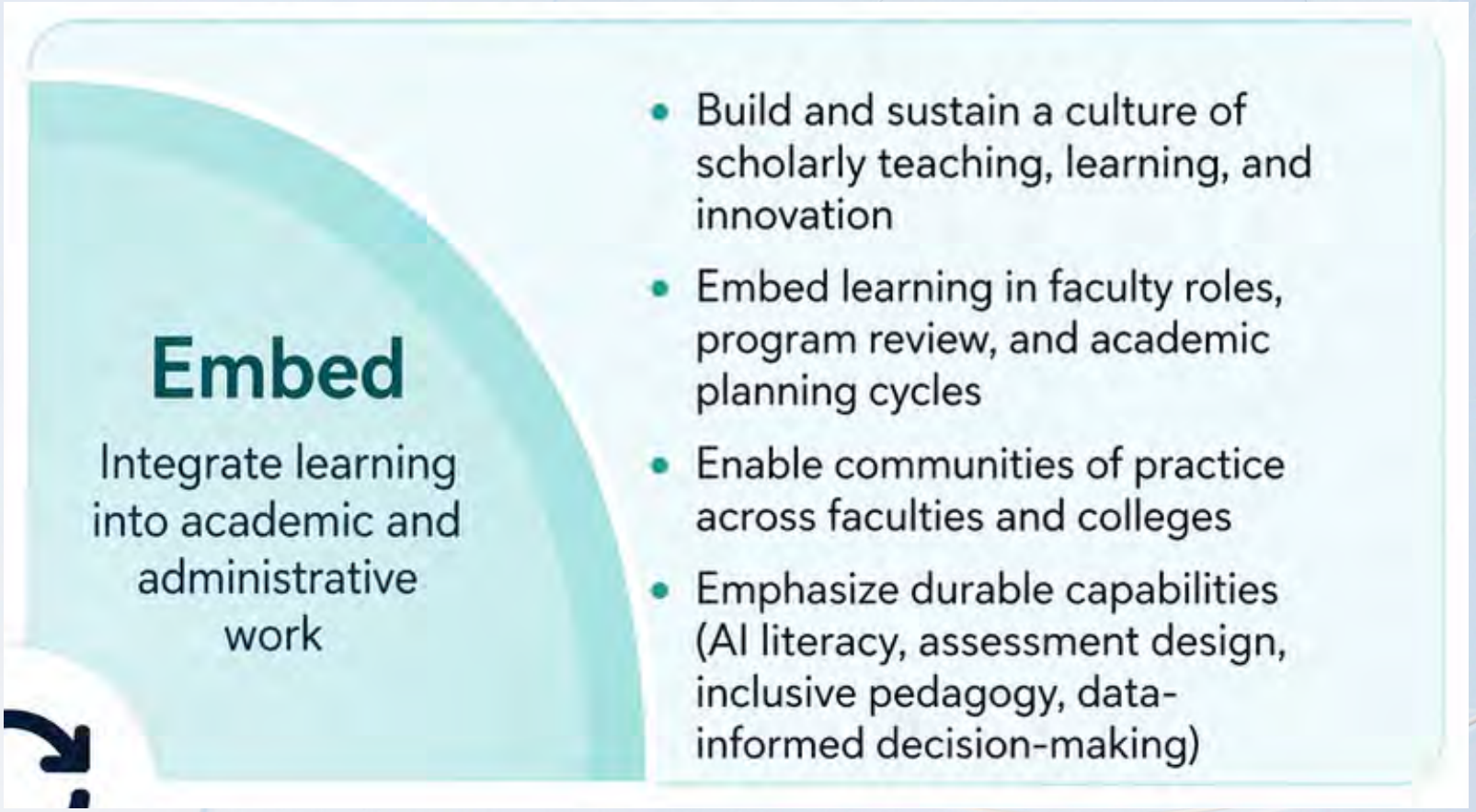
7. Unlocking the promise of augmentation through learning

The **D.E.E.P.** Learning Framework for Higher Education

7. Unlocking the promise of augmentation through learning



7. Unlocking the promise of augmentation through learning



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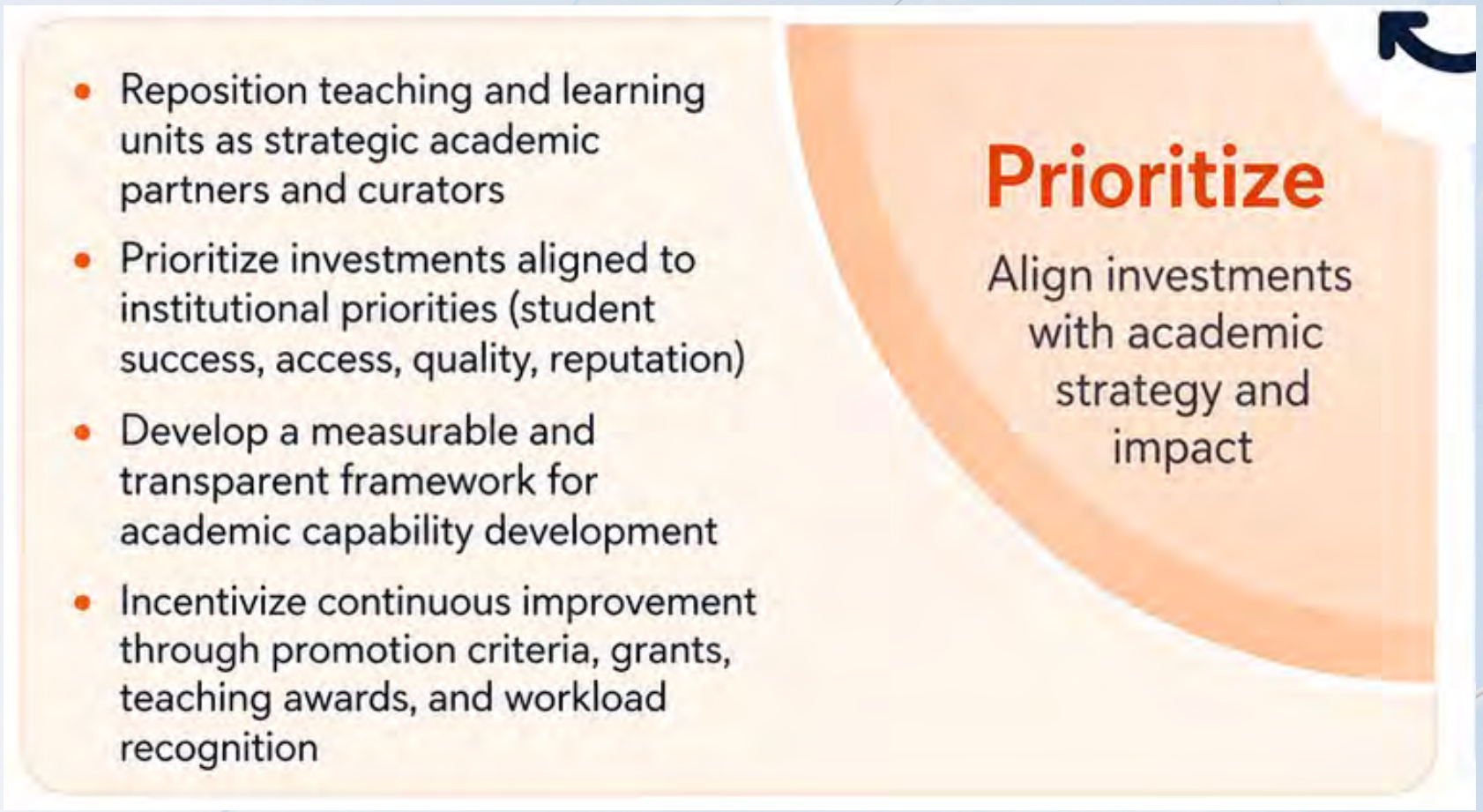


8. Leadership Takeaways and the Path Forward

Faculty Role Transformation
Faculty shift from overloaded experts to amplified educators with AI managing administrative tasks.

Deans and Department Challenges
Deans must redesign work, incentives, and clarify risks to integrate AI effectively.

Presidents' Strategic Vision
Presidents focus on moving from pilot AI projects to robust infrastructure emphasizing governance and equity.

AI as a Human Potential Enhancer
AI should be viewed as a design challenge aligned with academic values to enhance human potential.

9. Closing….but don’t leave yet

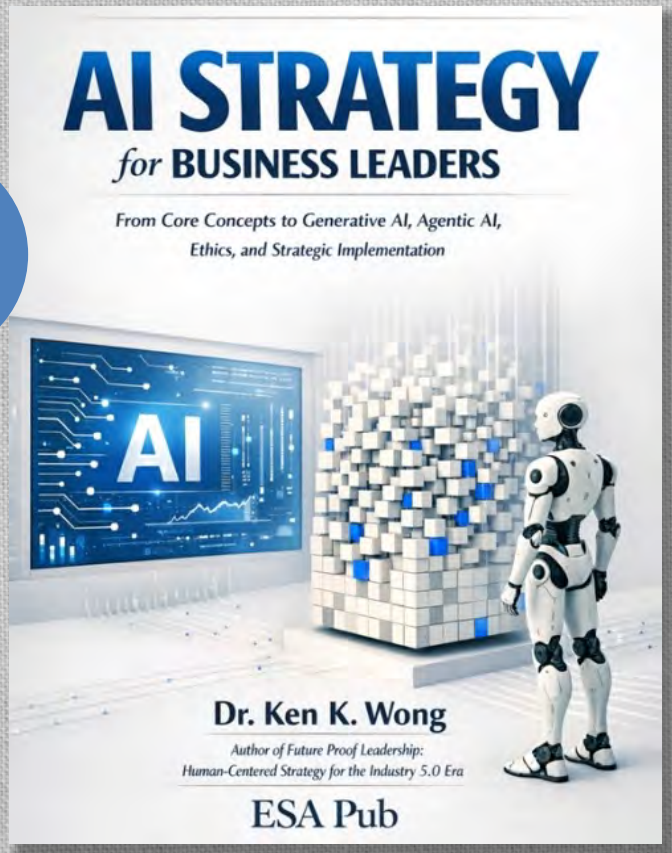
“Across all six dimensions we’ve discussed today, the underlying message is consistent: responsible AI adoption is not about tools—it’s about people, learning, governance, and institutional design.”

Institutions that invest deliberately in learning, align incentives with values, and treat governance as an enabler—not an obstacle—are the ones that will unlock AI’s promise in ways that are sustainable, ethical, and academically grounded.

“And ultimately, the institutions that get this right won’t just adopt AI. They’ll amplify the human work that defines higher education.”

10. Free "Watermarked" AI Book for You

2nd Edition!



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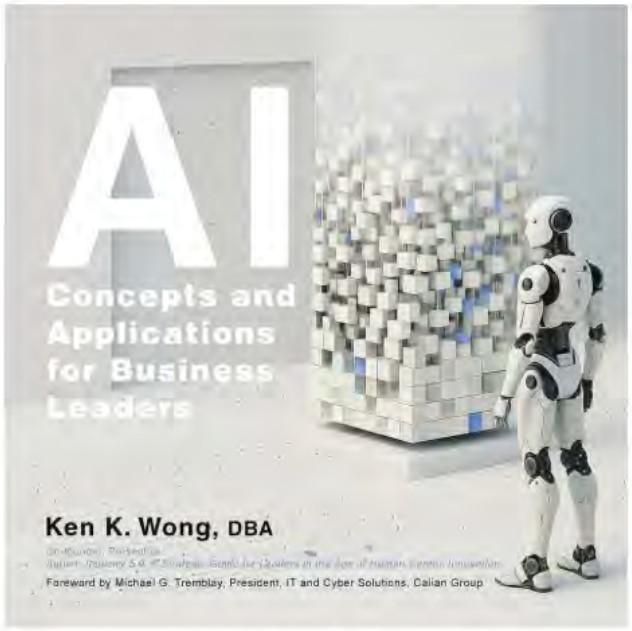

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References

Geogia Institute of Technology (2024). *Jill Watson: Scaling and Deploying an AI Conversational Agent in Online Classrooms*. https://dilab.gatech.edu/publications/jill-watson-scaling-and-deploying-an-ai-conversational-agent-in-online-classrooms/

LearnWise (2026). *JISC pilots AI-powered support services for students across 15 institutions.* https://www.learnwise.ai/customer-story/jisc-pilots-ai-powered-support-services-for-students-across-15-institutions

Microsoft (2026). *La Trobe University supercharges academic productivity with AI and Copilot Studio.* https://learn.microsoft.com/en-us/power-platform/guidance/case-studies/latrobe-supercharges

Ontario Public Service Employees Union (OPSEU/SEFPO) (March 10, 2026). *Will Artificial Intelligence change your work?* [Webinar]

Pearson. (2026). *Mind the Learning Gap: The Missing Link in AI's Productivity Promise* [report]. https://www.pearson.com/power-of-learning/ai-learning-gap.html

University of Toronto AI Task Force. (2025, June). *AI Task Force final report: Framework for responsible institutional AI use*. https://ai.utoronto.ca/u-of-t-ai-task-force/report/

World Economic Forum & Accenture. (2026, March 16). *Organizational Transformation in the Age of AI: How Organizations Maximize AI's Potential* [White paper]. https://www.weforum.org/publications/organizational-transformation-in-the-age-of-ai-how-organizations-maximize-ais-potential/

Q&A

Thank You

"The most consequential shift in higher education today is not technological — it is organizational."

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