

Future-Proofing Occupational Therapy Education: Integrating AI to Foster Participation-Focused, Skill-Based Practice

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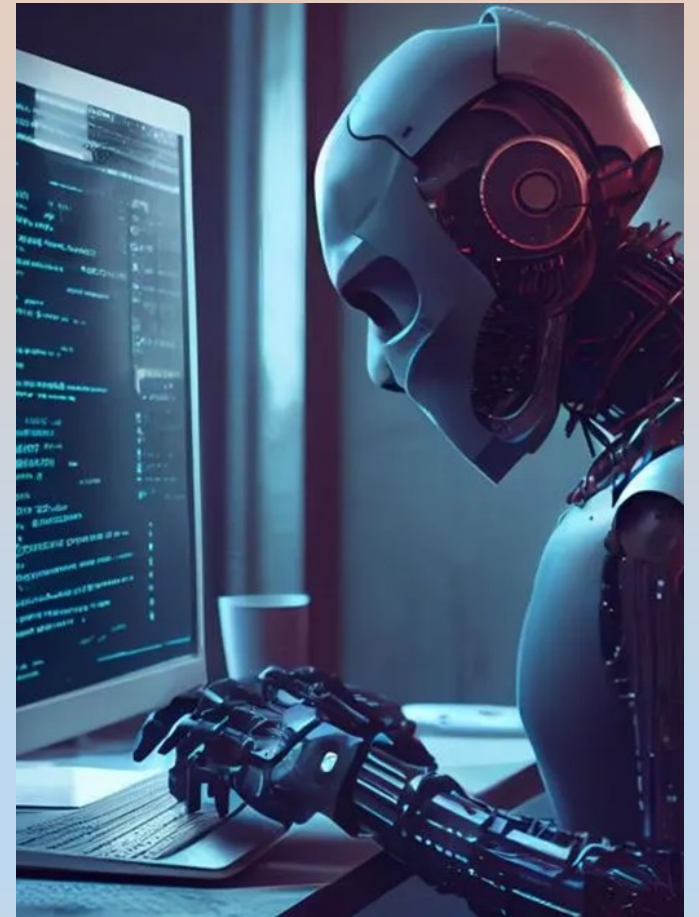




Why AI matters now

- AI is rapidly reshaping learning and practice
- Common fear: job displacement
- OT response: be **proactive and adaptive** so our role remains a critical and irreplaceable
- OT value: real human impact

**“Not artificial relevance
OT have genuine human impact.”**



The learning problem we're trying to solve

Health Care Students in a Digital Age “Busy but bored”

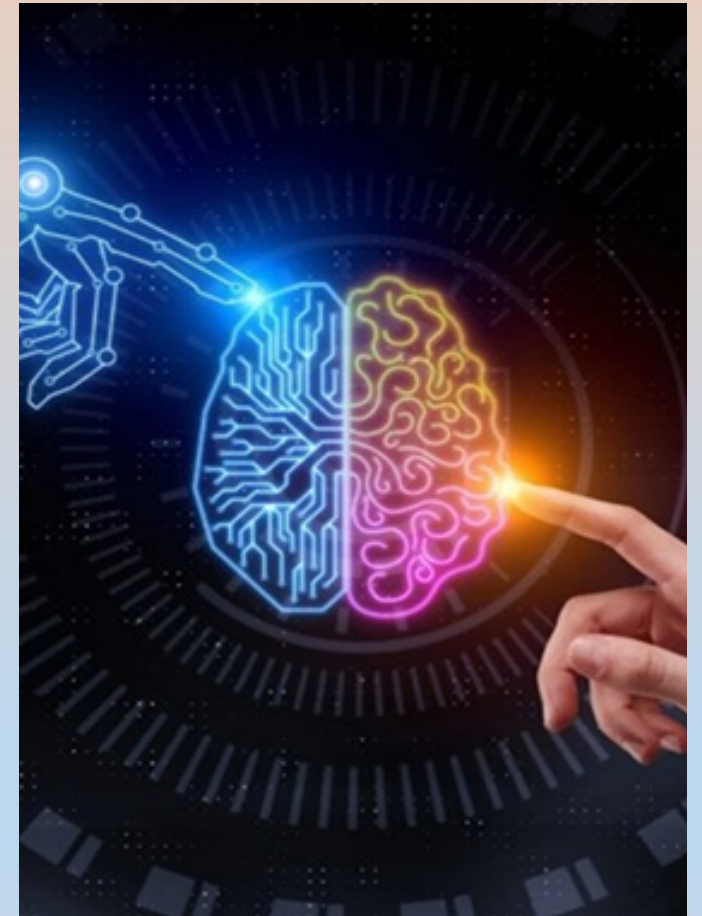
- Programs are designed for cohorts, not individuals
- Inadequate resources - limit innovation and creative learning experiences

“There is too much teaching and not enough learning.”

Halpin & Gopalan 2006

- Students are **trained** to adopt outcome-focused strategies
 - **submit next assignment - pass exams - pass course**

**AI used to help them complete program
but may impact learning**



The AI Risk in Education: Cognitive Offloading

- Cognitive offloading = shifting thinking to tools
- Risk: less deep engagement and reflective learning
- AI use - strong negative association with critical thinking ($r \approx -0.68$) Gerlich (2025)
- Educators worry use of AI and technology may weaken students' patient-care and interpersonal skills.
- Our aim: **digital discernment**, not digital dependence



What we did: A Department Scan (UAlberta MScOT)

- Why: AI can enhance learning or erode learning
- Method: met with course leads/teaching teams across the program
- Mapped: current practice, vulnerabilities, innovations
- Purpose: identify opportunities while minimizing cognitive offloading




What we learned and what we're doing (Jan 2026)

Faculty AI comfort and approach vary - most reactive, some proactive



Growing academic integrity fatigue → need for program-level consistency



Highest vulnerability: writing-heavy / take-home assessments



Our response: clarify acceptable use vs substitution + require transparency



Redesign assessments toward applied, in-class/oral/process tasks and provide ready-to-use tools + faculty supports

What must not be lost

“AI gives data → OT gives meaning”

OT's core values must guide AI integration



AI lacks empathy, culture, lived experience



OTs provide context + meaning to information



OT role in bias + privacy decisions, understand the person behind the “*data-driven healthcare*”

The Shift: from Content to Capability

- **Competency** is about performance in known situations.
- **Capability** is about thinking and acting wisely in new situations.
- Goal: capability-focused, inquiry-driven, occupation-centred learning
- Students as active partners in learning
- “We do not train students - we educate students”

Training = how
Education = why



Conclusion: Future-Proofing OT in the Age of AI

- **AI is here to stay** - our task is to integrate it ethically, critically, and purposefully.
- **OT's human strengths** - empathy, context, and connection remain essential and irreplaceable.
- **We must prepare students** to use AI as a tool.
- **As educators**, we are not just teaching content - we are shaping how future OTs will **think, act, and lead** in an AI-augmented world.

OT is an Art and Science

Our understanding of occupation
can help us use technology to redefine function

Today, with AI, we are only limited by our imaginations

Thank you



Questions?