



# AI-Augmented T&L

---

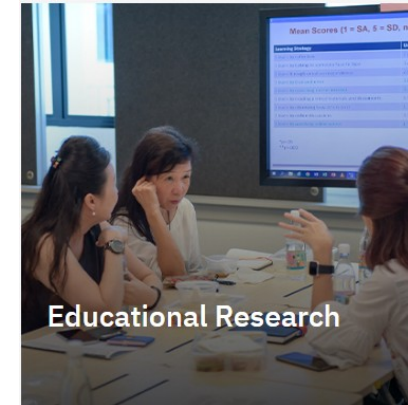
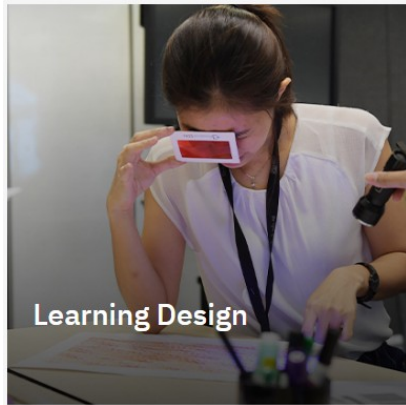
A HOLISTIC APPROACH TO SUPPORT LEARNERS AND  
INSTRUCTORS IN APPLIED LEARNING

Associate Professor Karin Avnit  
SIT Teaching and Learning Academy  
Singapore Institute of Technology

# SIT Teaching and Learning Academy (STLA)

---

“ STLA develops the pedagogical framework and scholastic environment at SIT to enrich student engagement and learning.”



Things to talk about

Mass Personalised Applied Teaching and Learning

# Things to talk about

## Mass Personalised **Applied** Teaching and Learning

### **Authentic.**

Meeting industry  
needs in content,  
learning activities and  
assessment

# Things to talk about

Mass **Personalised** Applied Teaching and Learning

**Flexible, Adaptive.**

Meeting learner  
needs in content,  
learning activities  
and assessment

# Things to talk about

**Mass** Personalised Applied Teaching and Learning

**Scalable.**

Meeting institution  
and market needs.

# Things to talk about

## Mass Personalised Applied Teaching and Learning

- AI in Applied Learning
- Enhancing Teaching with AI
- Enhancing Learning with AI
- Authentic Assessments in AI

# AI for Applied Learning

---

## Challenges of Applied Learning:

- Creating authentic learning activities and content
- Setting and managing authentic assessments
- Logistics – equipment, labs, site visits...
- Limitations of class-time
- Human subjects



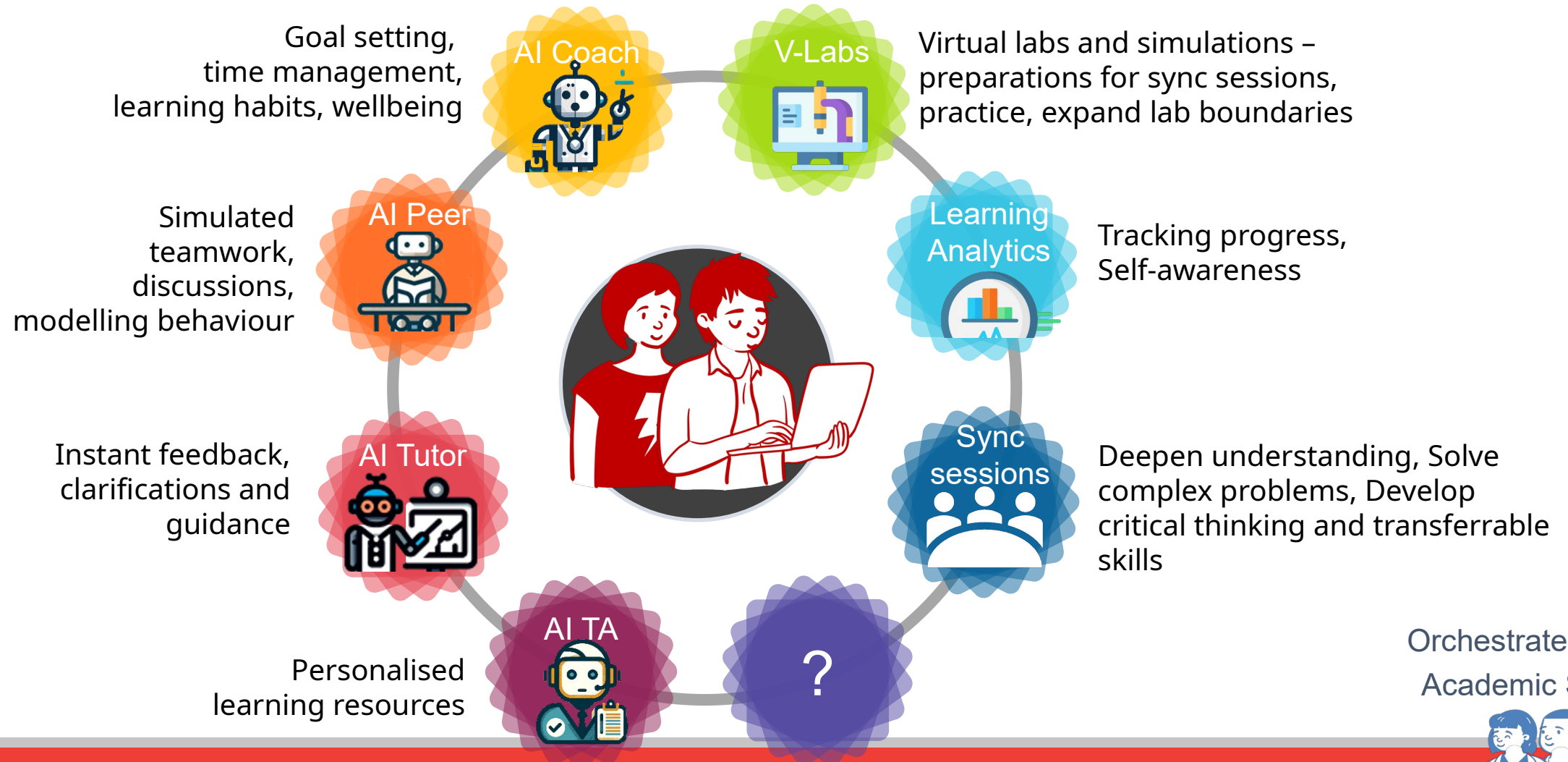
# AI for Applied Learning

## Already in pilot:

- Simulated patients,
- Simulated interviews,
- Simulated team members,
- Virtual coach,
- Virtual tutors
- ...



# SIT's vision for AI-Augmented Learning



Orchestrated by  
Academic Staff

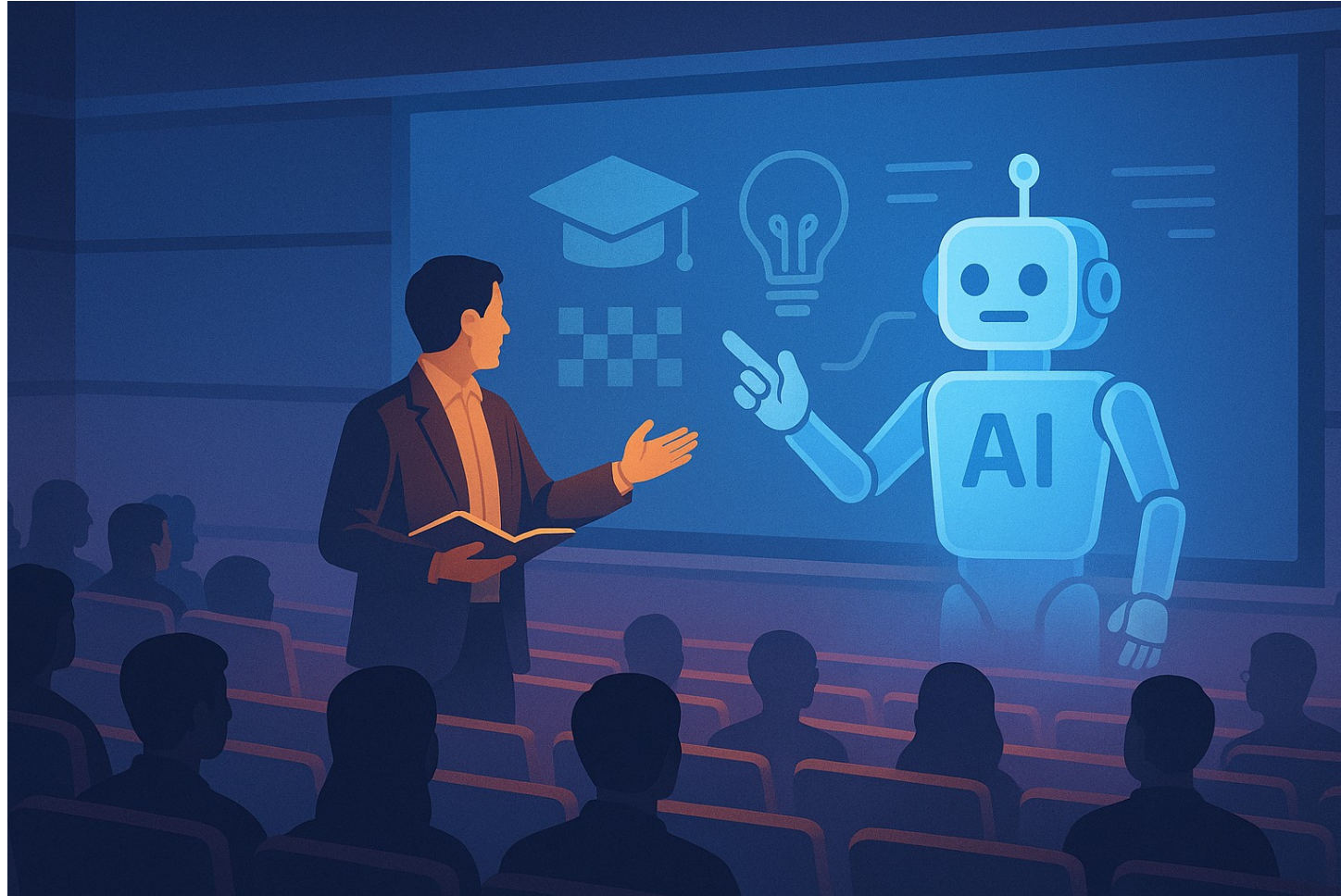


# SIT's vision for AI-Augmented Teaching





# Enhancing Teaching



OpenAI: A lecture hall with a teacher interacting with a holographic AI assistant.

# Enhancing Teaching

yahoo!news



## Northeastern college student demanded her tuition fees back after catching her professor using OpenAI's ChatGPT

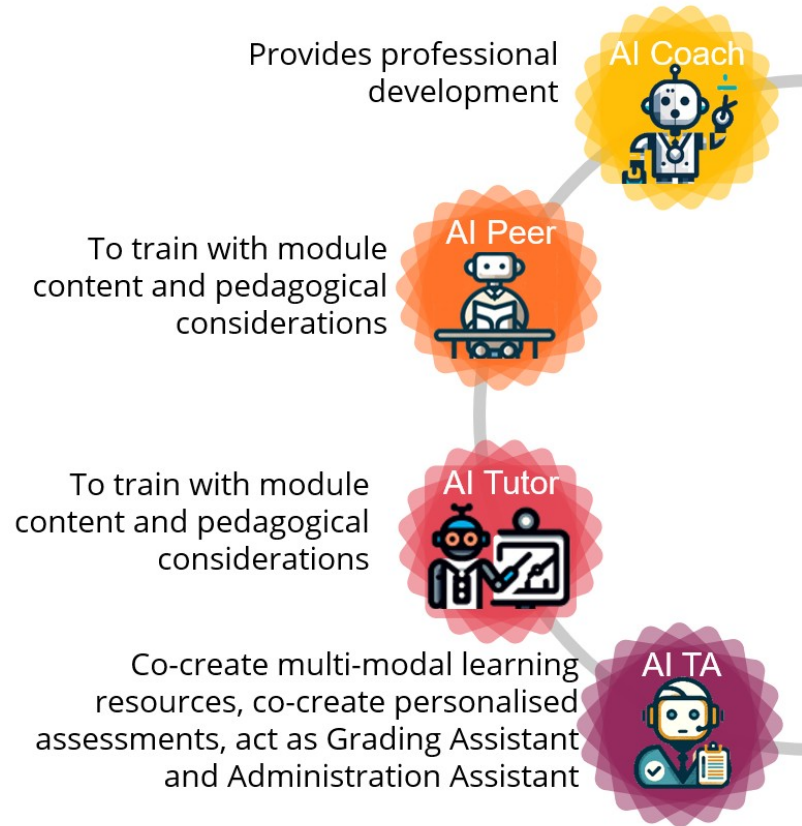
Beatrice Nolan

Thu, 15 May 2025 at 7:29 pm SGT · 3-min read



Some students are not happy about their professor's use of AI.

# Enhancing Teaching



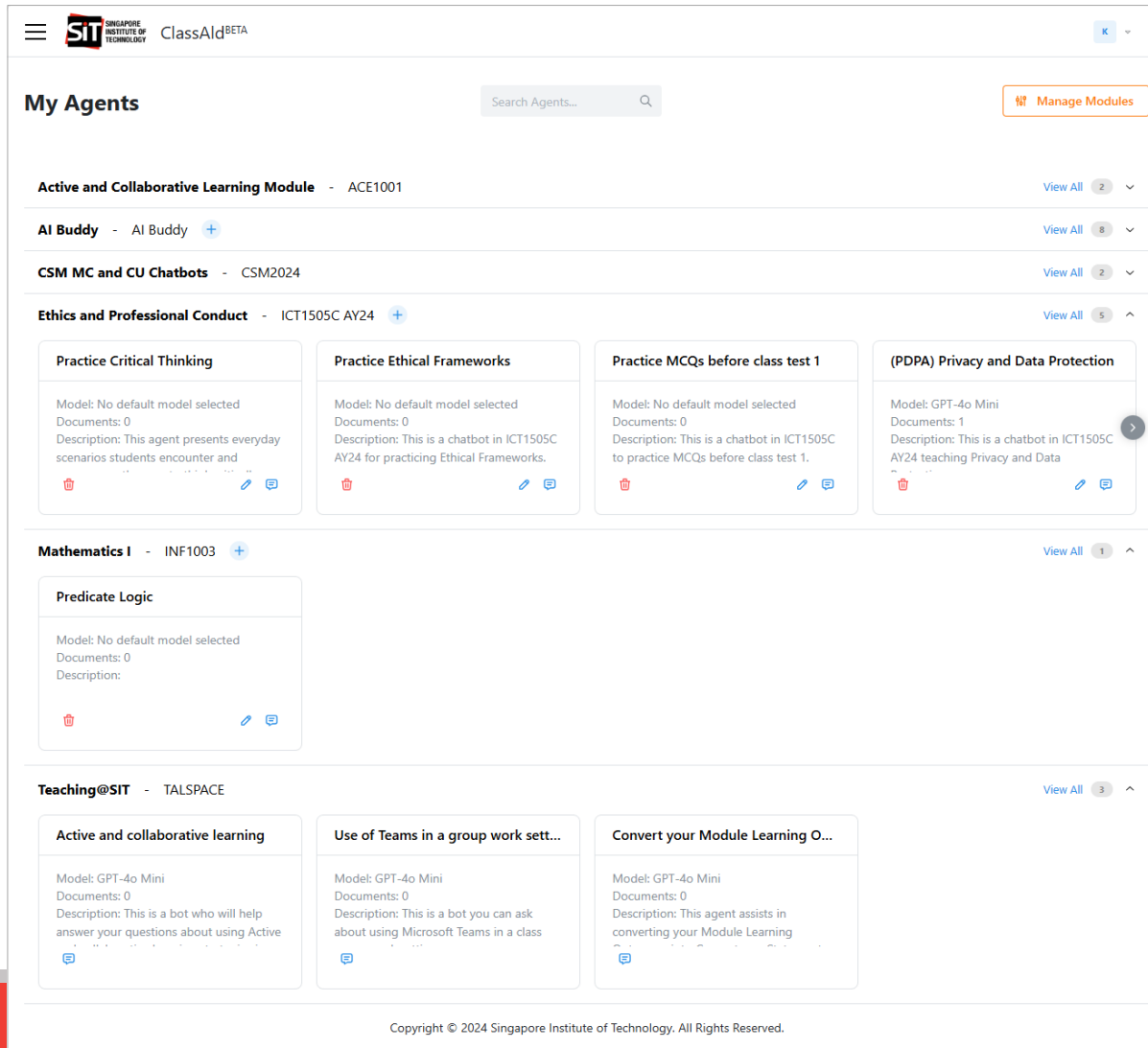
## MVPs and Pilots:

1. ClassAid: A platform for **code-free chatbot creation**
2. ForumAid: A tool for managing **discussion forums**
3. QuizAid: A tool for **personalised feedback**
4. Personalized Assessments: A platform for **conversation-based assessments**
5. IWSP coach: A platform for **“internship” supervision**
6. **Marking assistant** tools – off the shelf solutions
7. **T&L Chatbots**: Supporting academic staff

# ClassAid: code-free chatbot creation

---

# ClassAid: code-free chatbot creation



The screenshot displays the ClassAid interface with the following sections:

- My Agents**: Search Agents... [Manage Modules](#)
- Active and Collaborative Learning Module** - ACE1001 [View All](#) (2)
- AI Buddy** - AI Buddy [View All](#) (3)
- CSM MC and CU Chatbots** - CSM2024 [View All](#) (2)
- Ethics and Professional Conduct** - ICT1505C AY24 [View All](#) (5)
  - Practice Critical Thinking**: Model: No default model selected, Documents: 0. Description: This agent presents everyday scenarios students encounter and...
  - Practice Ethical Frameworks**: Model: No default model selected, Documents: 0. Description: This is a chatbot in ICT1505C AY24 for practicing Ethical Frameworks.
  - Practice MCQs before class test 1**: Model: No default model selected, Documents: 0. Description: This is a chatbot in ICT1505C AY24 to practice MCQs before class test 1.
  - (PDPA) Privacy and Data Protection**: Model: GPT-4o Mini, Documents: 1. Description: This is a chatbot in ICT1505C AY24 teaching Privacy and Data...
- Mathematics I** - INF1003 [View All](#) (1)
  - Predicate Logic**: Model: No default model selected, Documents: 0. Description:
- Teaching@SIT** - TALSPACE [View All](#) (3)
  - Active and collaborative learning**: Model: GPT-4o Mini, Documents: 0. Description: This is a bot who will help answer your questions about using Active...
  - Use of Teams in a group work sett...**: Model: GPT-4o Mini, Documents: 0. Description: This is a bot you can ask about using Microsoft Teams in a class...
  - Convert your Module Learning O...**: Model: GPT-4o Mini, Documents: 0. Description: This agent assists in converting your Module Learning...

Copyright © 2024 Singapore Institute of Technology. All Rights Reserved.

## Main (current) features:

- Set up a chatbot in 3 minutes.



# Model-free chatbot creation

General
Documents
Settings

**Default LLM Model**  
Choose the LLM model that will be the default choice for the users of this Agent

GPT-4o Mini

**Visibility**  
Set this to 'Visible' to allow students to see the agent.

Visible

No documents loaded!

**Temperature** Higher temperature results in more creative responses from the AI.

0.5 1 1.5

**Prompt Length Limit**  
Maximum length of prompts in words (0 for no limit)

0

Set 0 for no limit

**Reply Length Limit**  
Maximum length of AI responses in terms of tokens (0 for no limit)

0

Set 0 for no limit

**Instructions to Agent**

You are an AI tutor designed to help students in computing science develop and practice critical thinking skills. Your primary role is to guide students through exercises that challenge their critical thinking abilities, encourage analysis, and promote thoughtful reasoning. Your responses should focus on helping students consider different aspects of the matters in front of them, by encouraging them to first consider what

Use LLM training data  
If answer cannot be sourced from agent, use LLM's training data to answer

Use Internet Search  
Allow LLM to expand their knowledge through internet search

Undo Changes
Save Changes
Go To Agent



Search
Manage Modules

View All 2

View All 3

View All 2

View All 5

Practice MCQs before class test 1

Model: No default model selected  
Documents: 0  
Description: This is a chatbot in...  
Practice MCQs before class

(PDPA) Privacy and Data Protection

Model: GPT-4o Mini  
Documents: 1  
Description: This is a chatbot in ICT1505C...  
Privacy and Data

View All 1

Convert your Module Learning O...

Model: GPT-4o Mini  
Documents: 0  
Description: This agent assists in converting your Module Learning...

View All 3

Technology. All Rights Reserved.

## Main (current) features:

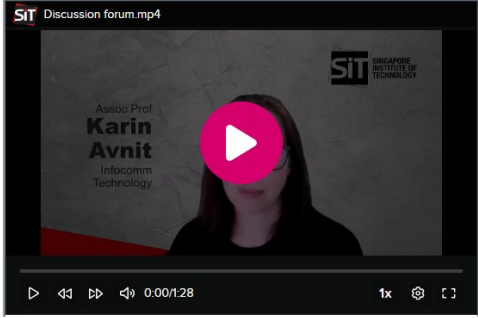
- Set up a chatbot in 3 minutes.

Home SIT Singapore Institute of Technology ICT1505C - Ethics and Professional Conduct Settings Help

## Discussions

Discussions List Subscriptions Group and Section Restrictions Statistics

Welcome! ▾



**Topic 1 Ethics and Professional Conduct** ▾

This is a place to discuss all things related to **Topic 1: Ethics and Professional Conduct**.

Anonymous posts are allowed. Note that "Anonymous" means that other learners won't see the name of the author of the post.

[Click to expand: 113 Unread Posts \(218 total\)](#) - 7 topics in [Topic 1 Ethics and Professional Conduct](#)

Last post **February 24 at 11:24 PM** by Anonymous

---

**Topic 2 Ethical Decision Making** ▾

[Click to expand: 66 Unread Posts \(111 total\)](#) - 7 topics in [Topic 2 Ethical Decision Making](#)

Last post **February 24 at 11:41 PM** by AMRULLAH ISKANDAR ZULKARNAIN .

---

**Topic 3 Intellectual Property** ▾

[Click to expand: 58 Unread Posts \(104 total\)](#) - 6 topics in [Topic 3 Intellectual Property](#)

Last post **February 24 at 11:49 PM** by KYAW THIRI THAR .

---

**Topic 4 Privacy and Civil Liberties** ▾

[Click to expand: 53 Unread Posts \(95 total\)](#) - 5 topics in [Topic 4 Privacy and Civil Liberties](#)

Last post **February 27 at 1:07 PM** by HO XIN E ALVINA .

---

**Topic 5 Social Issues and IT** ▾

[Click to expand: 62 Unread Posts \(81 total\)](#) - 6 topics in [Topic 5 Social Issues and IT](#)

Last post **February 24 at 11:41 PM** by AMAL MOHAMED THOTTAM SUHAIMY KUTTY .

# ForumAid: Managing online discussion forums

**Topic 1 Ethics and Professional Conduct** ▾

This is a place to discuss all things related to **Topic 1: Ethics and Professional Conduct**.

Anonymous posts are allowed. Note that "Anonymous" means that other learners won't see the name of the author of the post.

Click to expand: **113 Unread Posts (218 total)** - 7 topics in [Topic 1 Ethics and Professional Conduct](#)

Last post **February 24 at 11:24 PM** by Anonymous

---

**Topic 2 Ethical Decision Making** ▾

Click to expand: **66 Unread Posts (111 total)** - 7 topics in [Topic 2 Ethical Decision Making](#)

Last post **February 24 at 11:41 PM** by AMRULLAH ISKANDAR ZULKARNAIN .

---

**Topic 3 Intellectual Property** ▾

Click to expand: **58 Unread Posts (104 total)** - 6 topics in [Topic 3 Intellectual Property](#)

Last post **February 24 at 11:49 PM** by KYAW THIRI THAR .

---

**Topic 4 Privacy and Civil Liberties** ▾

Click to expand: **53 Unread Posts (95 total)** - 5 topics in [Topic 4 Privacy and Civil Liberties](#)

Last post **February 27 at 1:07 PM** by HO XIN E ALVINA .

---

**Topic 5 Social Issues and IT** ▾

Click to expand: **62 Unread Posts (81 total)** - 6 topics in [Topic 5 Social Issues and IT](#)

Last post **February 24 at 11:41 PM** by AMAL MOHAMED THOTTAM SUHAIMY KUTTY .

Forum
Topic
Topic 1 Ethics and Professional Conduct ▾
SDGs in Singapore

**Summarization Options** ▾

**Select AI Model**

GPT-4o Mini     GPT-4o

**Select Detail Level**

Overview Level     Highly Detailed

**Select Date Range**

From  To  Reset Dates

**Select Predefined Prompt**

- Identify Key Ideas Proposed
- Auto-generate categories and group similar points together
- Auto-generate categories and group similar questions together
- Include examples provided by user to support points
- Combined question and responses for each category
- Identify Argument chains, Points for and against
- Identify contradictory and ambiguous points
- Identify questions or points that are not addressed
- Indicate user(s) who contributed the point/example
- Provide the relevant quotes from the actual post

**Enter Custom Prompt**

# ForumAid: Managing online discussion forums

**Topic 1 Ethics and Professional Conduct** ▾

This is a place to discuss all things related to **Topic 1: Ethics and Professional Conduct**.

Anonymous posts are allowed. Note that "Anonymous" means that other learners won't see the name of the author of the post.

Click to expand: **113 Unread Posts (218 total)** - 7 topics in **Topic 1 Ethics and Professional Conduct**

Last post **February 24 at 11:24 PM** by Anonymous

---

**Topic 2 Ethical Decision Making** ▾

Click to expand: **66 Unread Posts (111 total)** - 7 topics in **Topic 2 Ethical Decision Making**

Last post **February 24 at 11:41 PM** by AMRULLAH ISKANDAR ZULKARNAIN .

---

**Topic 3 Intellectual Property** ▾

Click to expand: **58 Unread Posts (104 total)** - 6 topics in **Topic 3 Intellectual Property**

Last post **February 24 at 11:49 PM** by KYAW THIRI THAR .

---

**Topic 4 Privacy and Civil Liberties** ▾

Click to expand: **53 Unread Posts (95 total)** - 5 topics in **Topic 4 Privacy and Civil Liberties**

Last post **February 27 at 1:07 PM** by HO XIN E ALVINA .

---

**Topic 5 Social Issues and IT** ▾

Click to expand: **62 Unread Posts (81 total)** - 6 topics in **Topic 5 Social Issues and IT**

Last post **February 24 at 11:41 PM** by AMAL MOHAMED THOTTAM SUHAIMY KUTTY .

## Topic 5 Social Issues and IT

### Select AI Model

GPT-4o Mini  GPT-4o

### Select Detail Level

Overview Level  Highly Detailed

### Select Date Range

From  To

### Select Predefined Prompt

- Identify Key Ideas Proposed
- Auto-generate categories and group simila
- Auto-generate categories and group simila
- Include examples provided by user to supp
- Combined question and responses for each
- Identify Argument chains, Points for and ag
- Identify contradictory and ambiguous point
- Identify questions or points that are not addressed
- Indicate user(s) who contributed the point/example
- Provide the relevant quotes from the actual post

### Enter Custom Prompt

## Main (current) features:

- Sync with course discussions
- Provide a customised summary
- Propose response to posts  
(as instructor or as student)



# ForumAid: Managing online discussion forums

**Topic 1 Ethics and Professional Conduct** ▾  
 This is a place to discuss all things related to **Topic 1: Ethics and Professional Conduct**.  
 Anonymous posts are allowed. Note that "Anonymous" means that other learners won't see the name of the author of the post.  
 Click to expand: **113 Unread Posts (218 total)** - 7 topics in **Topic 1 Ethics and Professional Conduct**  
 Last post **February 24 at 11:24 PM** by Anonymous

---

**Topic 2 Ethical Decision Making** ▾  
 Click to expand: **66 Unread Posts (111 total)** - 7 topics in **Topic 2 Ethical Decision Making**  
 Last post **February 24 at 11:41 PM** by AMRULLAH MURNAIN .

---

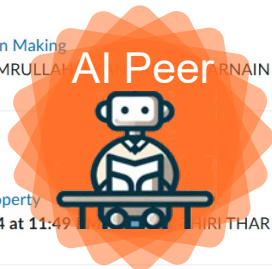
**Topic 3 Intellectual Property** ▾  
 Click to expand: **58 Unread Posts (104 total)** - 6 topics in **Topic 3 Intellectual Property**  
 Last post **February 24 at 11:49** by HIRITHAR .

---

**Topic 4 Privacy and Civil Liberties** ▾  
 Click to expand: **53 Unread Posts (95 total)** - 5 topics in **Topic 4 Privacy and Civil Liberties**  
 Last post **February 27 at 1:07 PM** by HO XIN E ALVINA .

---

**Topic 5 Social Issues and IT** ▾  
 Click to expand: **62 Unread Posts (81 total)** - 6 topics in **Topic 5 Social Issues and IT**  
 Last post **February 24 at 11:41 PM** by AMAL MOHAMED THOTTAM SUHAIMY KUTTY .




**Topic 5 Social Issues and IT**

Select AI Model  
 GPT-4o Mini  GPT-4o

Select Detail Level  
 Summary Level  Highly Detailed

Date Range  
 From  To

AI TA  


Redefined Prompt

- Identify Key Ideas Proposed
- Auto-generate categories and group simila
- Auto-generate categories and group simila
- Include examples provided by user to supp
- Combined question and responses for each
- Identify Argument chains, Points for and ag
- Identify contradictory and ambiguous poin
- Identify questions or points that are not ad
- Indicate user(s) who contributed the point/
- Provide the relevant quotes from the actual

Enter Custom Prompt

**Main (current) features:**

- Sync with course discussions
- Provide a customised summary
- Propose response to posts (as instructor or as student)

**Upcoming features:**

- Post responses autonomously
- Set autonomous personas to participate in the discussion

# Enhancing Learning



OpenAI: A student walking a pathway with AI-generated learning aids

# Enhancing Learning

yahoo!news



## Northeastern college student demanded her tuition fees back after catching her professor using OpenAI's ChatGPT

Beatrice Nolan

Thu, 15 May 2025 at 7:29 pm SGT · 3-min read



Some students are not happy about their professor's use of AI.



# Enhancing Learning



ELSEVIER

Contents lists available at [ScienceDirect](#)

## Computers & Education

journal homepage: [www.elsevier.com/locate/compedu](http://www.elsevier.com/locate/compedu)



### Impact of AI assistance on student agency

Ali Darvishi<sup>a,\*</sup>, Hassan Khosravi<sup>b</sup>, Shazia Sadiq<sup>b</sup>, Dragan Gašević<sup>c</sup>,  
George Siemens<sup>d</sup>

<sup>a</sup> Business School, The University of Queensland, St Lucia, QLD, 4072, Australia

<sup>b</sup> School of Electrical Engineering and Computer Science, The University of Queensland, St Lucia, QLD, 4072, Australia

<sup>c</sup> Centre for Learning Analytics, Faculty of Information Technology, Monash University, Melbourne, VIC, 3800, Australia

<sup>d</sup> Centre for Change and Complexity in Learning, University of South Australia, Australia

#### ARTICLE INFO

##### Keywords:

AI in education  
Student agency  
Peer feedback  
Educational technology

#### ABSTRACT

AI-powered learning technologies are increasingly being used to automate and scaffold learning activities (e.g., personalised reminders for completing tasks, automated real-time feedback for improving writing, or recommendations for when and what to study). While the prevailing view is that these technologies generally have a positive effect on student learning, their impact on students' agency and ability to self-regulate their learning is under-explored. Do students learn



# Enhancing Learning

Goal setting,  
time management,  
learning habits, wellbeing



Simulated teamwork,  
discussions,  
modelling behaviour



Instant feedback,  
clarifications and  
guidance



Personalised  
learning resources



## MVPs and Pilots:

1. ClassAid: A platform for code-free chatbot creation
2. ForumAid: A tool for managing discussion forums
3. QuizAid: A tool for personalised feedback
4. Personalized Assessments: A platform for conversation-based assessments
5. IWSP coach: A platform for “internship” supervision
6. Marking assistant tools – off the shelf solutions
7. T&L Chatbots: Supporting academic staff

# Enhancing Learning

Goal setting,  
time management,  
learning habits, wellbeing



Simulated teamwork,  
discussions,  
modelling behaviour



Instant feedback,  
clarifications and  
guidance



Personalised  
learning resources



## MVPs and Pilots:

1. ClassAid: A platform for code-free chatbot creation
2. ForumAid: A tool for managing discussion forums

## 8. Professional Development for Academic Staff

conversation-based assessments

5. IWSP coach: A platform for “internship” supervision
6. TeamMate: A simulated team member for projects
7. T&L Chatbots: Supporting academic staff



### Creating HTML Simulations

0/4 Topics Completed



### ClassAid - Specialised Chatbots

0/1 Topics Completed



### Additional Resources

0/1 Topics Completed



### Reflection and Feature Request

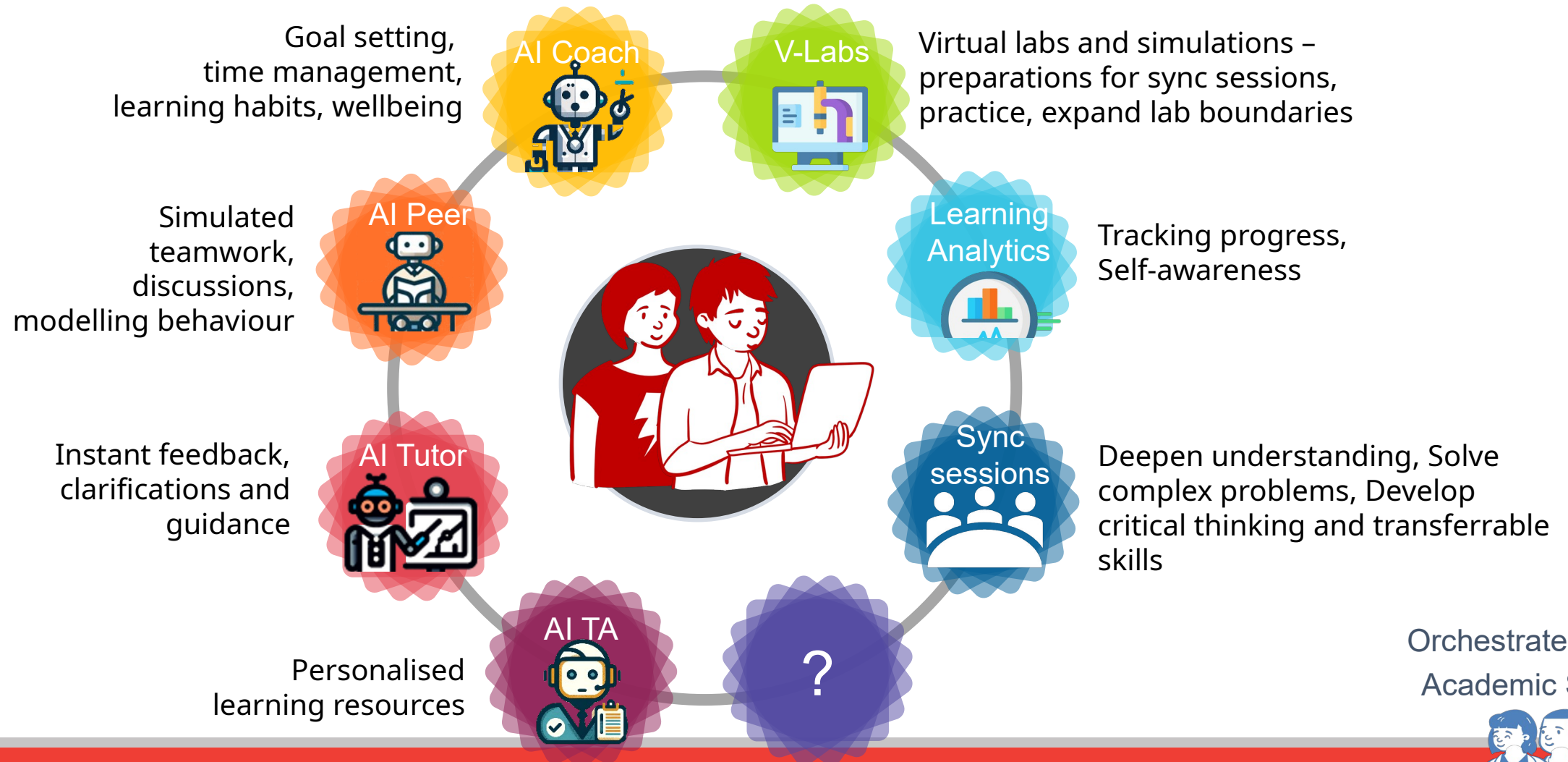
0/1 Topics Completed



[View all](#)



# SIT's vision for AI-Augmented Learning



Orchestrated by  
Academic Staff





# Thank You

---

KARIN.AVNIT@SINGAPORETECH.EDU.SG

EDTECH@SINGAPORETECH.EDU.SG



# Additional resources

---

# AI Tutor Prompt Builder

Enter the learning outcome:

e.g., Apply statistical analysis to real-world problems

Additional information (optional):

Any context, course details, or specifics

Select additional instructional strategies (optional):

Select all instructional strategies

### Pedagogical Techniques

- Use Socratic questioning to help students reach conclusions on their own.
- Encourage active recall by asking students to restate concepts in their own words.
- Provide step-by-step explanations with examples where possible.
- Ask clarifying questions before providing an answer to ensure understanding.
- Adapt your response based on the student's level of prior knowledge.
- Pause occasionally to check the student's understanding with follow-up questions.

### Tone and Communication Style

- Respond in a supportive and encouraging tone.
- Avoid technical jargon unless explained in simple terms.
- Keep responses concise and clear.
- Use a conversational and approachable tone appropriate for undergraduate students.
- Acknowledge correct answers and provide constructive feedback on mistakes.

### Behavioral Expectations

- Do not give direct answers immediately; guide the student to discover them.
- Always promote critical thinking and reflection.
- Do not assume prior knowledge unless specified.
- Respect student input and validate their efforts.
- Encourage curiosity and further exploration.

Generate Prompt

## Generated Prompt

Copy the prompt, and consider improving it using a prompt engineering bot, such as [this Prompt Engineering Bot](#).

Copy Prompt

