Using GenAI to Simulate End-of-Life Conversations

Executive Summary

This poster presents an innovative use of Generative AI to simulate end-of-life conversations in a multidisciplinary undergraduate seminar course on ageing in Tembusu College. Students engage in emotionally attuned and culturally sensitive dialogues with AI personas representing elderly individuals facing terminal illness, cognitive decline, or spiritual concerns. Real-time scaffolding and AI-led reflection promote empathy, ethical reasoning, and communication confidence. This intervention demonstrates a scalable, authentic learning approach that bridges theoretical knowledge with real-world application in healthcare and community settings.

Research Objectives

- ✓ To evaluate the effectiveness of GenAi in facilitating empathetic communication skills
- ✓ To examine the role of AI-led scaffolding and reflection to support learning
- ✓ To explore how AI simulations enhance student confidence and competence in introducing end-of-life planning tools

Methodology

Students engaged in a GenAI-powered role-play simulating end-of-life (EoL) conversations with elderly personas. Each persona reflected distinct cultural, emotional, and medical concerns. The simulation was grounded in authentic learning principles (Herrington and Oliver 2000), enabling students to engage in complex, ill-structured problems reflective of real-world ageing contexts. GenAI dynamically adapted to student input, including the introduction of Advance Care Planning (ACP), Advance Medical Directive (AMD), or Lasting Power of Attorney (LPA). Post-simulation, AI prompted reflective questions to deepen learning, supporting empathy, critical thinking, and values-based decision-making.

Five Charts

1. Persona Selection

Students begin by selecting one of four diverse elderly personas representing different cultural, emotional and medical backgrounds. Personas were created based on stories obtained in interviews with elderly and adapted by GenAI.

2. Conversation with Persona

Student engages in chat with the chosen persona. The AI responds in a grounded tone based on the instructor-only prompt.

3. Introducing EoL Planning

Student brings up EoL planning tools if appropriate. This should prompt a thoughtful AI response aligned with the persona's trust level and values.

4. AI-scaffolded Prompt when Student is Stuck

When the student hesitates, the AI offers a gentle scaffold to guide the conversation forward.

5. Reflective Debrief

After typing "Reflect", the student is prompted with reflection questions tailored to the conversation.

Try it here:

Challenges

1. Creating personas that felt realistic and emotionally layered.
2. Ensuring AI could react meaningfully to varied student input while preserving spontaneity and avoiding repetitiveness posed a challenge in prompts.
3. Designing a smooth transition from role-play to AI-led reflection without confusing the student or breaking flow

Conclusion

This simulation provide students with a safe and immersive space to engage in difficult conversations, develop empathy and enhance emotional attunement.

Reference

Herrington, J., & Oliver, R. (2000). An instructional design frame- work for authentic learning environments. *Educational Technology Research and Development*, 48(3), 23–48.

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