

Virtual Training in an Artificial Intelligence Environment

Omar Ejaz, Dan Dunning, Andrew Boyd
 Advisor: Dr. Enyue (Annie) Lu



Abstract

Virtual Simulations provide several advantages such as allowing students to practice with less stress and risk than if they were performing the actual process. Students are also able to practice at any time as opposed to scheduled clinical hours, saving both time and money. In this project, we've created a health care environment with an artificial intelligence that allows students to practice making health care decisions.

Purpose

Create a supplemental learning tool for nursing students that provides:

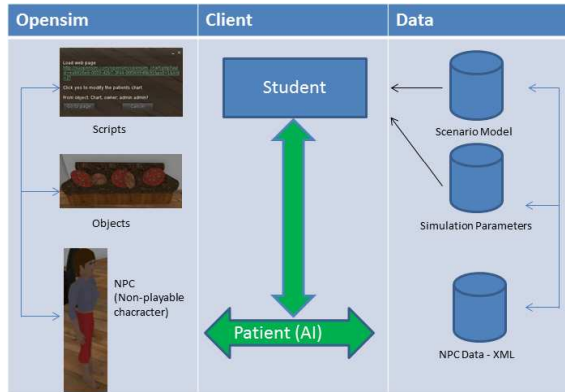
- Problem solving scenarios
- Review questions
- Editable patient charts with full history and symptoms

Methods (software)

- Opensim – Engine used for the simulation
- Hamachi – VPN
- Windows Server 2008 – Operating system to run all software
- MySQL – Backend and data storage

Conclusion

A simulated artificial intelligence enable health care environment has been created. A simulation with a home based scenario similar to one encountered by nurses working for a social agency has been tested. The future work includes creating additional healthcare and nursing scenarios by collaborating with nursing faculty and students.



Interacting with the AI

admin admin Have you ever had any surgical procedures done, Alice?

Alice Bot In 2006, I had surgery to get a cataract removed.

admin admin Are you taking any medication, Alice?

Alice Bot I take Depakote twice a day

admin admin Alice, do you know anything about your mother or fathers medical history?

Alice Bot Well, my mother had diabetes but im not sure about my father. I haven't spoken to him in a long time but I think he had heart problems.

admin admin Are you allergic to any medication, Alice?

Alice Bot Not that I know about.

SU_0e66424 How are you feeling, Alice?

Alice Bot Well... I'm feeling a little nauseated and tired I haven't been able to sleep

WELCOME admin

Click on the text to edit the notes.

Family History

- * Mother has a history of diabetes
- * Father has heart disease

Patient History

- * Suffers from migraines
- * Had eye surgery in 2006 to remove cataract

Patient Symptoms

- * Headache
- * Fatigue
- * Nausea

Current Medications

Depakote ER

Allergies

None Reported

