SENIORS IN SECOND LIFE

P3 Deliverable
*Conceptual Model*

Team Members:

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1. Abstract

Interaction design and usability study on the use of computing equipment by senior citizens is taking a new game-like approach at Auburn University. In fact, more than one project in the CSSE department is centered around the design and implementation of a Virtual Learning Space for senior citizens. As such, this project involves an interdisciplinary team who will create new Learning Spaces in Second Life during an eight week period. Various skills will be needed in order to achieve this goal, notably that of an intermediate developer and User Interaction Specialist; thus requiring familiarity with 3D and web based application design, as well as scripting languages. This main purpose of this project is to offer a unique contribution to the senior community, and hopefully help other communities’- such as K-12 and adult education- learning efforts as well. This type of computer-supported collaborative work will also enhance the quality of life for senior citizens, increase their computing skills, and increase their cybertrust.
2. **Project Schedule**

![Project Schedule](image)

**Figure 1:** Project Schedule created using MS Project

![Project Schedule](image)

**Figure 2:** Project Schedule continued
3. **Application Requirements:**

   a) **Hardware Requirements:**
   - **Internet Connection:** Cable or DSL
   - **Computer Processor:** 800 MHz Pentium III or Athlon, or better
   - **Computer Memory:** 512 MB or more
   - **Screen Resolution:** 1024x768 pixels or higher
   - **Graphics Card:** NVIDIA GeForce 6600 or better; ATI Radeon 8500, 9250 or better; Intel 945 chipset

   b) **Software Requirements:**
   
   Operating system: Windows XP, Vista, MacOsX, Linux.
   A browser such as Internet Explorer or Firefox is required to download the Second life Viewer.
   Updated system requirements are also available at:

4. **Lexicon:**
   - **Linden:** the unit of currency for all monetary transactions in Second Life.
   - **Second life:** Second Life is a 3-D virtual world created by its Residents. Since its opening to the public in 2003, it has grown explosively and today is inhabited by millions of Residents from around the globe.
   - **Fly:** enables avatars to fly from one location to another.
   - **Showcase:** displays interesting places and things going on in second life.
   - **Avatar:** 3D persona representing each second life community member.
   - **Inventory:** enables second life user to manage his/her stuff such as clothing and avatars.
   - **Teleport:** this option enables users to get from one location to another quickly.
   - **SLurl:** is used to teleport to new locations directly
5. **Software Process: SCRUM**

The Scrum software process is well suited for our project for the following reasons:

1. It is designed for object-oriented applications, especially for a complex project such as ours (*Second Life* was developed using an object-oriented paradigm).

2. It is an enhancement of the Iterative and Incremental approach, and thus entails different cycles.

3. It facilitates collaboration among team members through regular meetings.

4. It involves frequent reviews (design review, code review, documentation review, testing).

5. It is still efficient with a non-rigorous project schedule (it is flexible throughout).

6. It allows flexible releases which in our case are weekly project deliverables.

7. Most importantly, it devises the most ingenious solutions throughout the project, as learning occurs and the environment changes, which is very likely to occur because the re-organization of all virtual worlds by the Second Life maintenance team can complicate our task.
6. **Wire Frame and Conceptual Model**

   a) **Wire Frame**

   The general chat in Second Life can only be heard in a radius of 20 meters; therefore, no one should be further than 20 meters away from anyone else, or they will not be able to participate in the chat discussion.

   Our suggested design is a circular room having a radius of 20 meters, with the instructor's table at the center (Figure 1). As such, any person or object in the room will be at most 10 meters away from the instructor, and at most 20 meters away from each other. The presentation boards will be mounted on the walls.

   ![Figure 3: Classroom Design](image-url)
b) Conceptual Model & Prototypes

Conceptually, we would like to recreate a traditional classroom environment as much as possible. The classrooms will appear to be behind doors leading off of a lobby, with chairs, desks, and a teacher showing a series of slides. Hopefully, the users will be engaged by the material and react like they would in a classroom, asking questions, taking notes, and generally learning something new.

Figure 4: Gardening Virtual Classroom Wire frame
Figure 5: Cyber Security virtual classroom Wire frame
7. **Scenarios:**

a) **Mesbahi:**

**Scenario for the “Gardening” Classroom #1**

After accessing second life and the Auburn academic island, Rose teleport to her chosen class (in this case: gardening). Once on the classroom, she can sit and watch an introduction about the course. Then, she chooses from a menu either to watch the lecture of the day, learn more about a specific plant, discover gardening steps for a type of plants or watch experts opinions in gardening. After watching the lecture, she can ask her virtual professor, give comments, or suggestions. She can also practice her gardening knowledge in the sample gardens available in the classroom corners.

![Figure 6: Mock-Up of the Gardening Virtual Classroom](image-url)
b) Difante:

**Scenario for the “Photography” Classroom #2**

The user will enter the lobby and click on the “photography” door, which will likely be marked by a picture of a camera. They will be teleported to the classroom. Inside, the classroom will have a teacher and several displays, each of which acts as a projector screen that displays slides demonstrating the basics of taking pictures. As there is no telling what kind of camera the user has, the classroom will focus on picture taking techniques rather than issues specific to the physical camera.

Issues I would like to cover: 1) The rule of thirds, which helps with composing pictures. The eye tends to move along lines the divide the picture in thirds, and so you should use these lines to frame important features, or to draw attention to them. 2) The use of light, specifically on avoiding flooding the picture with too much light or having shadows obscure parts of the subject. 3) The use of framing to emphasize the subject, or to give a sense of the setting. 4) How to handle action shots, such as children running around.

These subjects will be brought up using the slides, and discussed by the teacher, with example photos being displayed and handed out to the class.

c) Belinga:

**Scenario for the “Lobby/Main Entrance” Classroom #3**

Students- in this case Senior citizens- will enter the "Tiger Hall", our main facility through central double doors. There, they will be greeted by an intelligent agent serving as receptionist such as a presentation board or any other automated being or object. The receptionist will give them a one to three sentences speech regarding the conceptual design behind this virtual school, then show them three doors, each leading to a classroom in "Gardening", "Photography", and "Cyber Safety".

In order to make a selection, the user will simply to walk towards the desired door and a script will teleport him/her to the appropriate classroom. When exiting any classroom, a different script will teleport them back to the main entrance.

As such, users will have the impression that the classrooms are located on the same floor, whereas they lie above each other.