

Goal: Our IPRO is called Edutainment because we develop computer games that **educate** and provide **entertainment** at the same time. This IPRO has already experienced success with this concept in previous semesters with the games CreditSafe and CollegePursuit. The goal this semester for IPRO 329 is to continue to develop, user-test, and market a 3D children's museum game called Scholars of the Lost Exhibit. Scholars of the Lost Exhibit takes the student on a journey through a magical museum filled with friends and foes, while testing the student in the areas of Math, Science, Social Studies, and Language Arts. It is designed to be fully interactive and immersive while also doing an effective job of teaching the material presented.

Tasks: The organization of our group was such that individual teams within the IPRO are assigned specific tasks in order to more effectively reach the goal of the IPRO. These teams are Design, Development, User Experience, and Management. Each team had focused tasks:

- **Design:** Continue to develop the overall look, feel, and playability of the game; have flowcharts and mock-up screenshots of at least two wings in addition to the Science wing; complete the user interface of the museum lobby and the Science wing; begin to incorporate the data given to them by the User Experience team.
- **Development:** Complete enough of the higher-level programming of the game to allow players to walk around and interact with objects in the museum lobby; complete the higher-level code for the Science wing; have the dialogue of the said parts of the museum complete to allow an interactive demo to be run on IPRO day; complete the overall game architecture.
- **User Experience:** Conduct research, interviews, and observations to gather information about gaming solutions based on the game's target audience's likes and dislikes; enter into different elementary schools during the semester to gather this data; have video documentation of this progress ready to display on IPRO day; present their gatherings to the Design team in order to help design a more effective and targeted game.
- **Management:** Ensure deadlines are met by the entire IPRO; complete all IPRO deliverables; ensure that all files are properly documented and filed in an organized and predetermined way on the IPRO's online filing system, OWL; record progress through team and individual reports; constructing, distributing, and managing peer evaluations.

Achievements: The following is what our IPRO was able to complete this semester.

- The Design team did research on how corporate design teams effectively communicate with programming teams to help the development of the game. Further, they developed several actual character designs in Adobe Illustrator to present to students. They also designed the entire opening animations of the game, including cut scenes and basic character dialog. Finally, they completed the design of three games in the Science wing of the game, complete with flowcharts, mock-up screenshots, and full-fledged prototypes of the in-game play.
- The Development team began work on Scholars of the Lost Exhibit, which began with everyone on the team learning Flash. They also developed demos of basic issues, such as a tile-based way to move around the game world, which will allow future teams to start with a large portion of the work done for them. The Development team also developed the basic architecture of the game, with various classes and other object-oriented code. Although they encountered a few issues with Flash, they were able to vanquish them through working together.
- User Experience did some research on various children's games that are already available either online or on CD; they took some of these games into elementary schools to gather data on the student's reactions to the games. They also brought in some of the Design team's materials, such as the character designs that they completed, to observe the students' reactions to them. All of this was captured on video to create a video presentation of their work for IPRO day. All of the team members also became certified by IIT's Institutional Review Board (IRB) for research purposes.
- The Management team successfully managed the IPRO deliverables throughout the semester by tracking each team's progress and reporting it efficiently. Also, they designed and implemented a peer evaluation strategy that allowed everyone in the IPRO to see where he or she stood with his or her peers. Management also developed several hierarchies of files on OWL to allow for quick and easy filing and access to all of the IPRO's material for semesters to come.

Outcome: The combined outcome of our team's efforts is an improvement in the overall development of Scholars of the Lost Exhibit. While it cannot be said when the game will be completed because it is such a large task, all of the teams working together were able to continue to move development on to a point that everyone was satisfied with.

Next Steps: Scholars of the Lost Exhibit must continue to be developed, as there are still a couple of wings of the game that must be created and developed. However, with the higher-level programming in place, the move from Phase II to Phase III of the game is imminent.

Faculty Advisor: Dr. Susan Feinberg

Design Team

Jacqueline Sokolowski
Hugo Alvarez
Joshua Vogt
Antonio Pacheco Jr.
Stephany Filimon

Development Team

Steve Pfisterer (Project Manager)
Kevin Ruettiger
Thomas Cheung
Megha Yanamadula
Joshua Haycraft

User Experience Team

Jerrell Mardis
Sean Maloney
Christina Arvis
Toan Nguyen
Thorsten Froehlich

Management Team

Lauren Joyce
Chelsea Boldra
Mandy Wong
Christopher Lino