

Motivation:

NOT APPROVED

Originally, we thought about which topic we should pick would make the presentation most interesting. The subject of this assignment is named interactive visualization, and we came up with a solution to improve the interaction between the program and users. From the perspective of visualization, we can attract the vision of users by presenting multimedia functionalities such as movie scenario. However, from the perspective of interaction, we hope users to learn and involve in the scenario which facilitates them to get more knowledge. It's why we design the whole framework as a game which should be gone through step by step. We have referred to several visualization techniques taught by the lecturer such as rapid zooming, brushing, elision, etc. Most of them are popularly used in movie industry, and robustness and practicability of such techniques are proof by several famous movies.

Differing from other groups, we choose Halley Comet to be the topic. Actually, Halley comet is an interesting star which people are not unfamiliar with. People normally heard this name, but they didn't understand why Halley comet passes by solar system about every 76 years. According to this reason, we designed five scenarios, and try to convey different subject in each scenario which introduced some knowledge related to Halley comet. The five scenarios are presented as follow in sequence, birth, level of gasification, solar wind, deep impact, and disappearance. All materials we used to convey the knowledge of Halley comet to users include animations, movie clips, 2D games, and so on. I wish that users can really absorb some common sense about Halley comet after they play with our program.

Arguments

During the pre-presentation of assignment two, many participants were impressed by our program. Meanwhile, they proposed several comments on it. I would like to describe them briefly in the coming paragraph. First comment is that we didn't construct the whole scenario in a user-friendly way. It means users perhaps have no idea what's the relation between each scenario. Afterwards second comment is that most people didn't have any knowledge about Halley comet. If we didn't add any description or instruction to inform users what is going on when they manipulate the interface of this program. It definitely brings them more and more questions, and they

still don't understand why the variation happens. The last comment is that we are supposed to point out some keywords within the whole paragraph. Otherwise users may lose their patience to read through the article and digest it.

In order to improve our program, we modified the whole scenario like an entertainment game. First of all, as the program is activated, the music with a tremendous momentum is played and the highlighted titles are displayed in sequence such as special effects in a movie. We hope that users' vision can be attracted at the first beginning. Later, the program runs step by step. As long as users can't finish the previous scenario, they fail to enter the next one. Subjects I mentioned before are conducted during users involve in the atmosphere. The main frame is divided into five segments, and the program consists of preview introduction, and five combinations of preview description and interactive interface. The notion of interactive visualization is brought out by such an entertainingly teaching program.

When we demonstrated this program in the final presentation, most participants show their anxieties to play with it. We thought we made a prototype to create a fancy project which shows our creativity and imagination.