MAS.490: Introduction to Game Design

Problem Set #6

Due October 17, 2002 at 3pm. Send problem sets to orwant@media.mit.edu.

1. Implement the final 20% of your adventure game.

2. Design a role-playing game with a theme that draws on science or engineering. You won't have to implement it, but be sure to design a game that *could* be implemented with today's technology.

    a. Describe the theme in two or three paragraphs. Which of the six player archetypes (fragmaster, problem solver, treasure hunter, story chaser, narcissist, escapist) will enjoy the game most?

    b. Describe the character classes (at least four, but no more than seven). What distinguishes them in appearance, abilities, and skills? (An ability is something innate, like intelligence; a skills is something learned, like smithing.)

    c. Provide three sample quests with the "string of pearls" structure. That is, completing the campaign requires completing a series of subquests in linear order, but the subquests themselves can be nonlinear.

    d. What are some of the weapons your game will support? If your game isn't combat oriented, describe tools instead of weapons.

    e. What are some of the coveted items your game will support? These could be tools or weapons, but should have special powers that prove useful in unusual circumstances.

    f. What alignment system will your game use? If you use the "standard" alignment system of {chaotic,lawful,neutral}{good,evil,neutral}, give one scenario (or ethical dilemma) from a subquest and describe how someone of each of the nine alignments would approach it differently.

    g. Pick a subsystem of the role-playing game and document it as though it were part of a dungeon-master's guide, showing potential outcomes and their probabilities. The subsystem should have the granularity of one of the subheads in GURPS. For instance, don't choose "COMBAT" or "ILLNESS" – those are too broad. If your game were about mechanical engineering, you might describe how rolling machines might collide in a 2.70-like arena, computing the differences of the kinetic energy and using that to construct a table of damage to the machines. If your game were about biological warfare, you might describe the probabilities of accidental exposure to deadly chemicals in the lab. Whatever subsystem you choose, condense the outcomes into a table of 20-sided die rolls, e.g., if the bacterium has virulence X, and the player rolls an X or lower, their damage is X minus their roll.