

Interactive Drama

EECS 494

10/02/06 by J. Laird and Sugih Jamin

Interactive Drama

An “interactive drama” ... is a first-person experience within a fantasy world, in which the User may create, enact, and observe a character whose choices and actions affect the course of events just as they might in a play.

-Brenda Laurel 1986

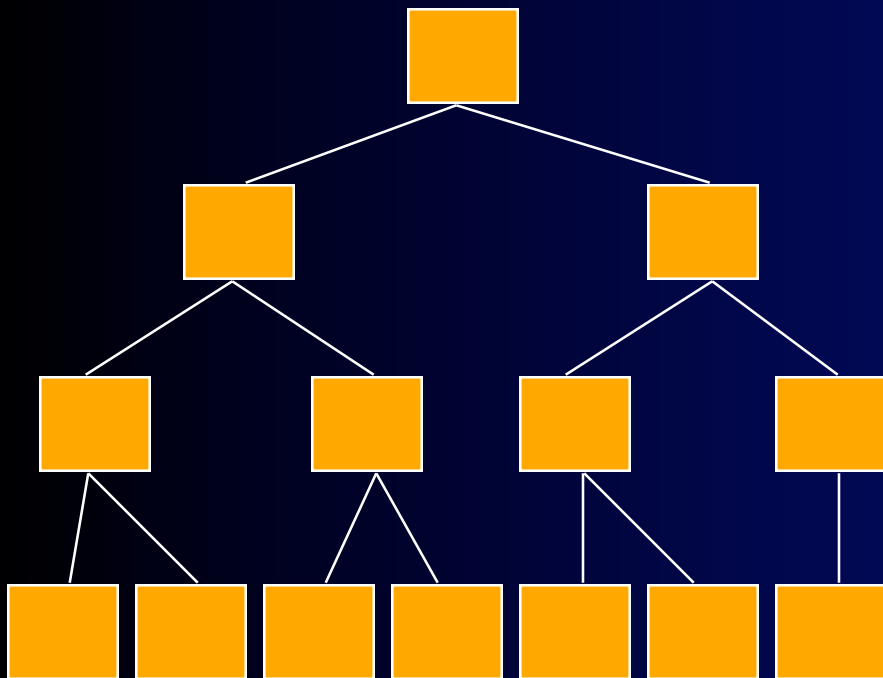
Interactive Drama

- Interactive = ??
 - Decisions that influences the outcome
- Drama
 - Achieving a goal by overcoming obstacles
- Problems: interactive drama = oxymoron
 - How can writer control the pace, plot, etc.?
 - How can the user feel in control but be “led” through a story?

Different Approaches: Evaluation

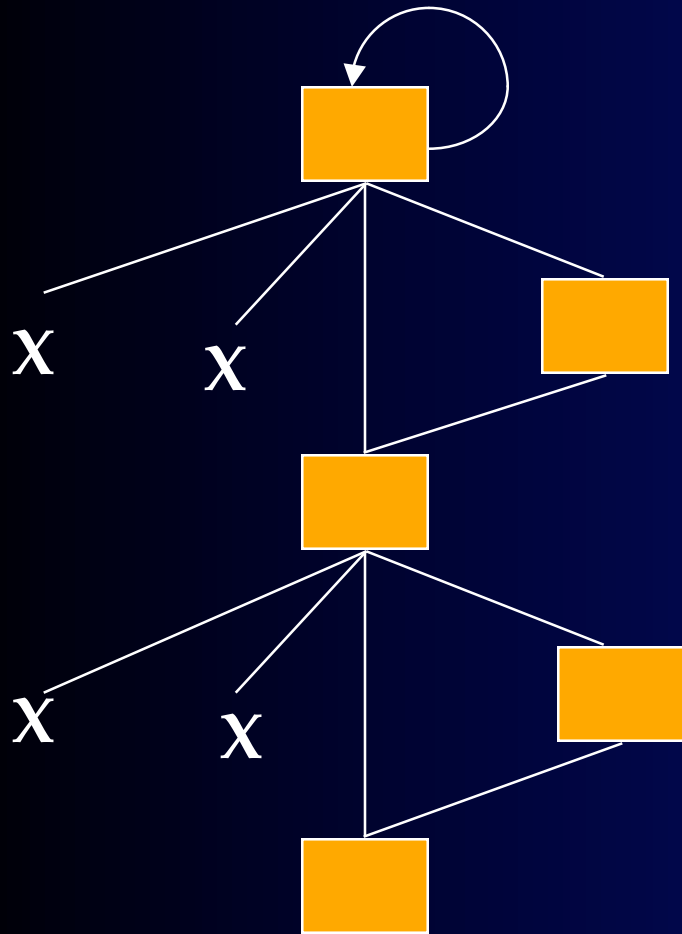
- How many choices do you really get?
- How much drama do you really get?
- Any replay?
- Most important:
 - Find way to align player's goals with the goals of the character
 - Player naturally does what plot demands
 - Easy for DOOM, hard for Hamlet

I. Tree from Hell



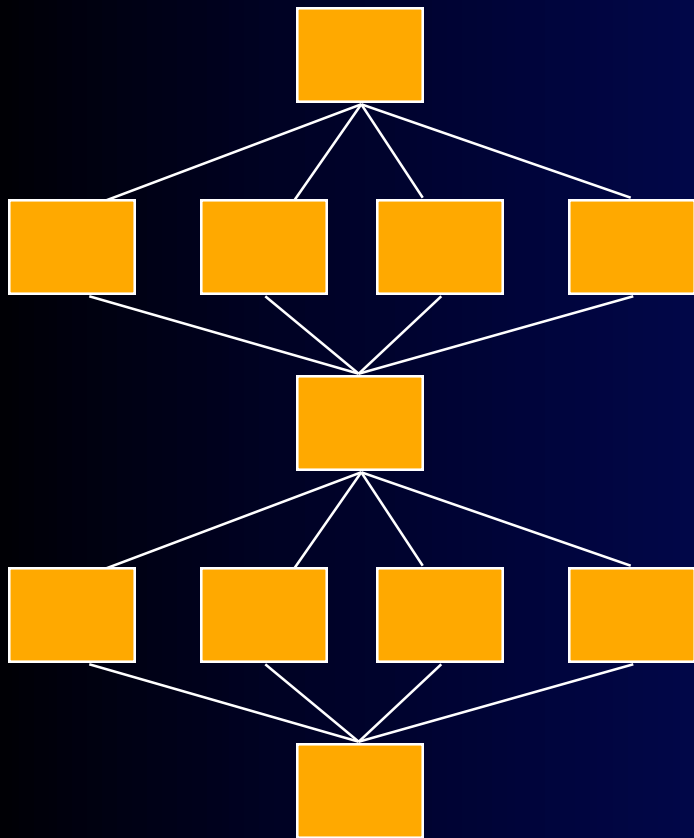
- Different plot based on each decision
- This is what people really expect
- Must create 16 scenes for only 4 decisions ($S = 2^d$)
- Very difficult to create 10 really good scenes in a movie

II. Death Trap



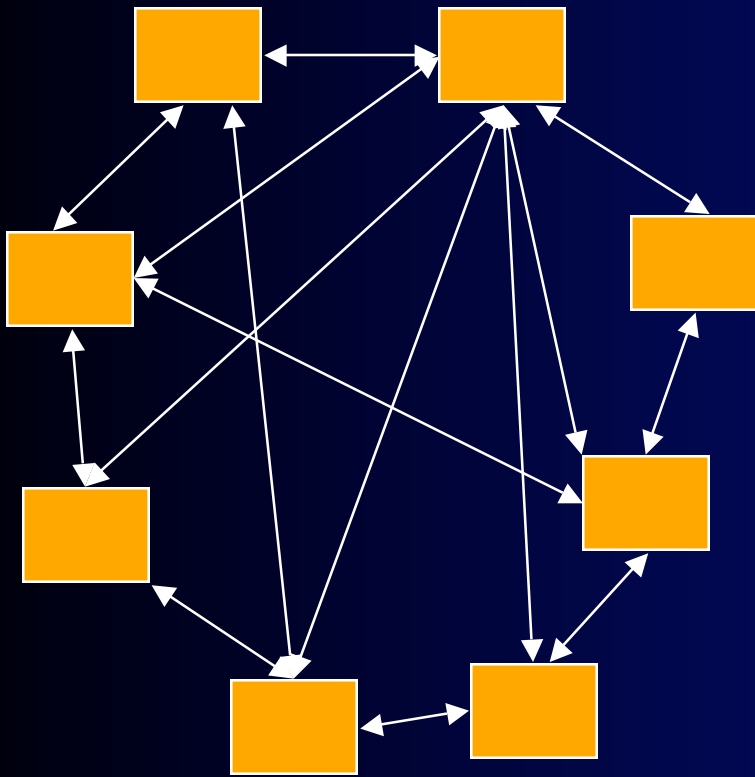
- Lots of “choices”
 - one takes you forward
 - some lead to death
 - some are side trips
 - some lead you back
- Usually artificially limit choices
 - Desert Island
 - Boat
 - Spaceship (Warlock)

III. Hour Glass



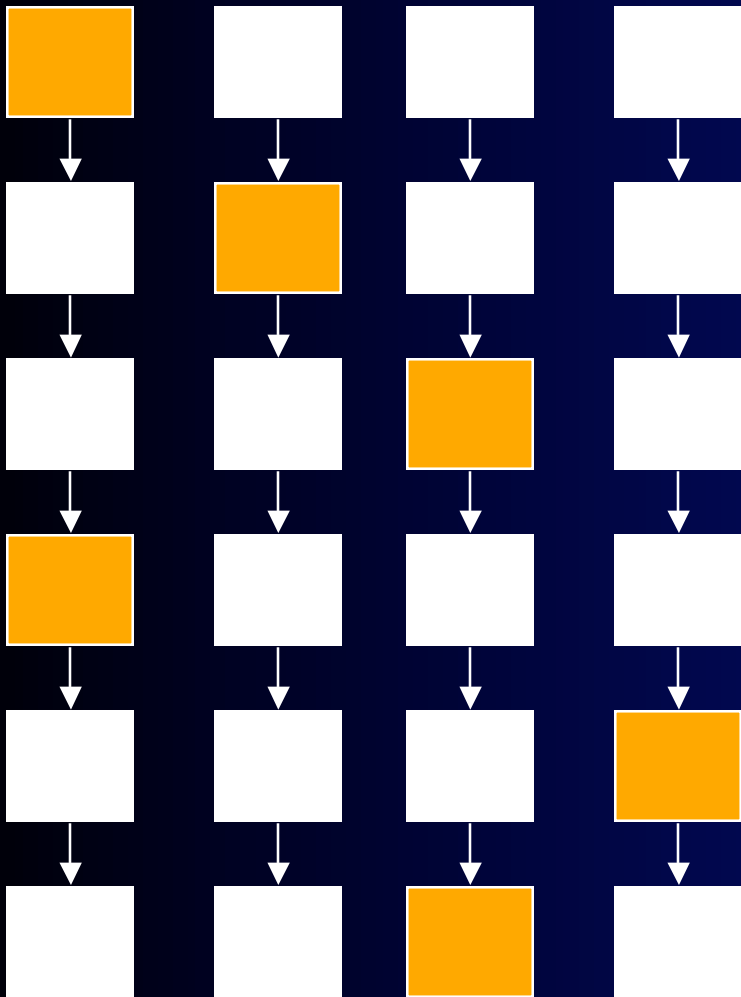
- Lots of choices, but choices don't really matter
- Kinder, gentler death trap

IV. Open Environment



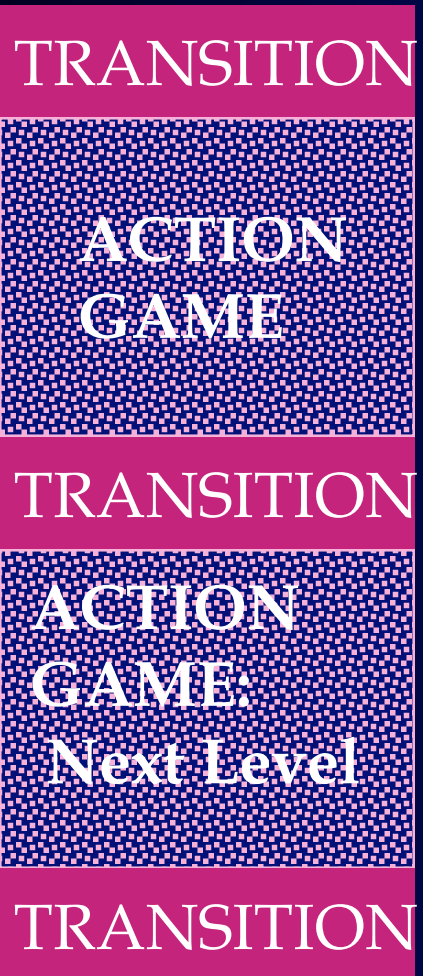
- Character explores and interacts with world
- D&D, role playing games
- Hard to have any plot or drama
- Hard to have interaction & interesting characters

V. Peeping Tom



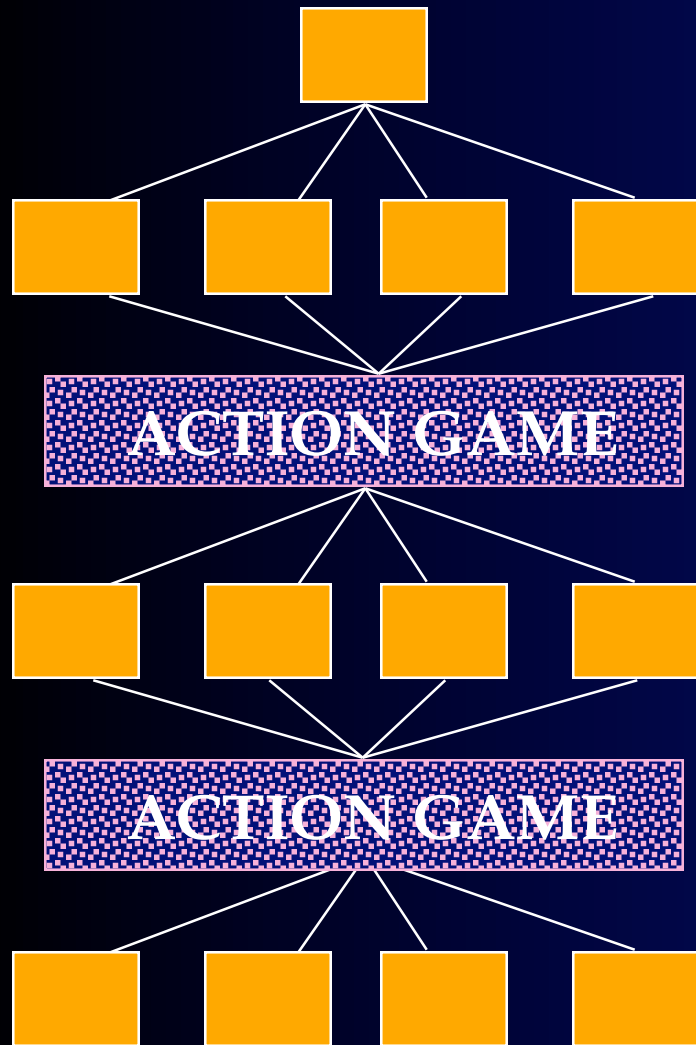
- Many things happening, but can only view one at a time
- **Voyeur, NightTrap**
- Can't change what happens
- Replay?
- Been done as a live-action play

VI. Transition Movies



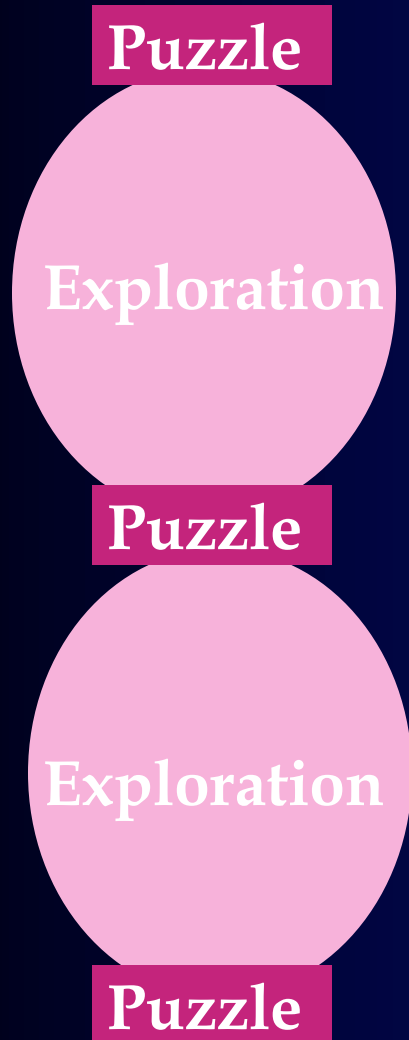
- Game play followed by “reward” transition
- Lots of \$\$ go into transitions, less go into gameplay
- No choices on plot

VII. Hour Glass/Action Game



- Plot unfolds as user “makes” key decisions or takes specific action
- Maintains plot and story, but usually limited decisions
- Intermediate decisions can determine initial conditions for action game
- Action game may have 2-3 endings
- Often multiple endings
- Wing Commander IV

VIII. Linear with Puzzles

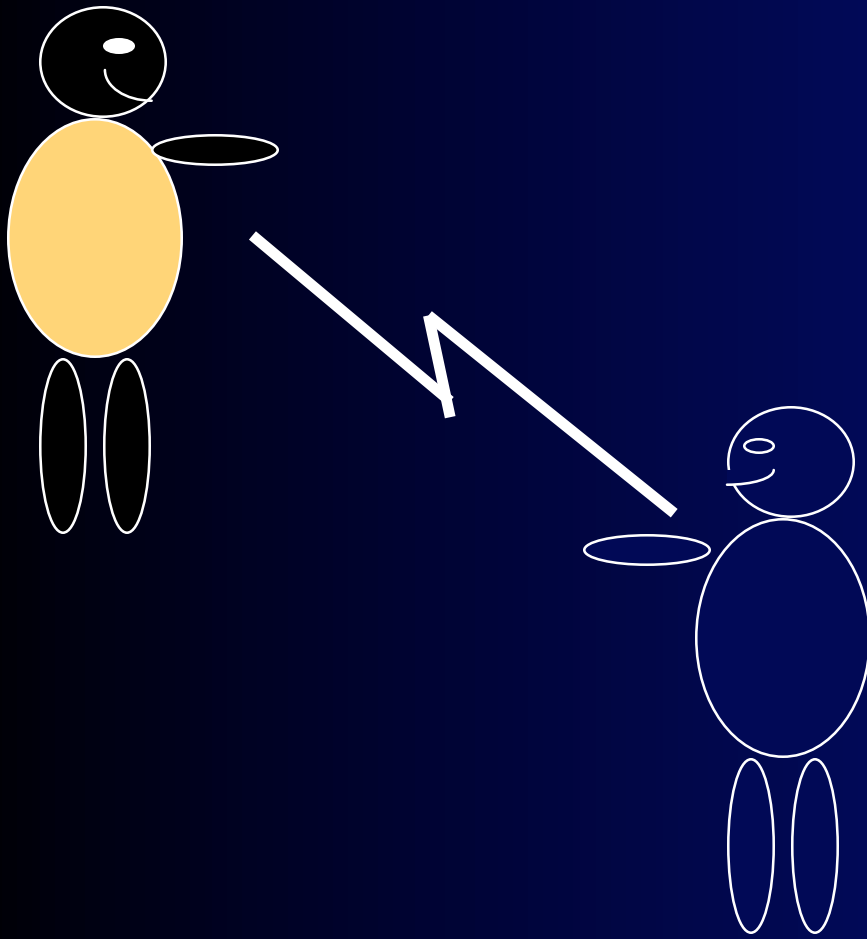


- Open world with puzzles that block your way
- Puzzles should be solvable from story
- No real choices in outcome (except death)
- Myst, Beyond Time, Zork, Full Throttle, Day of the Tenacle, The Dig, 7th Guest, ...

Design Sins of Linear with Puzzles

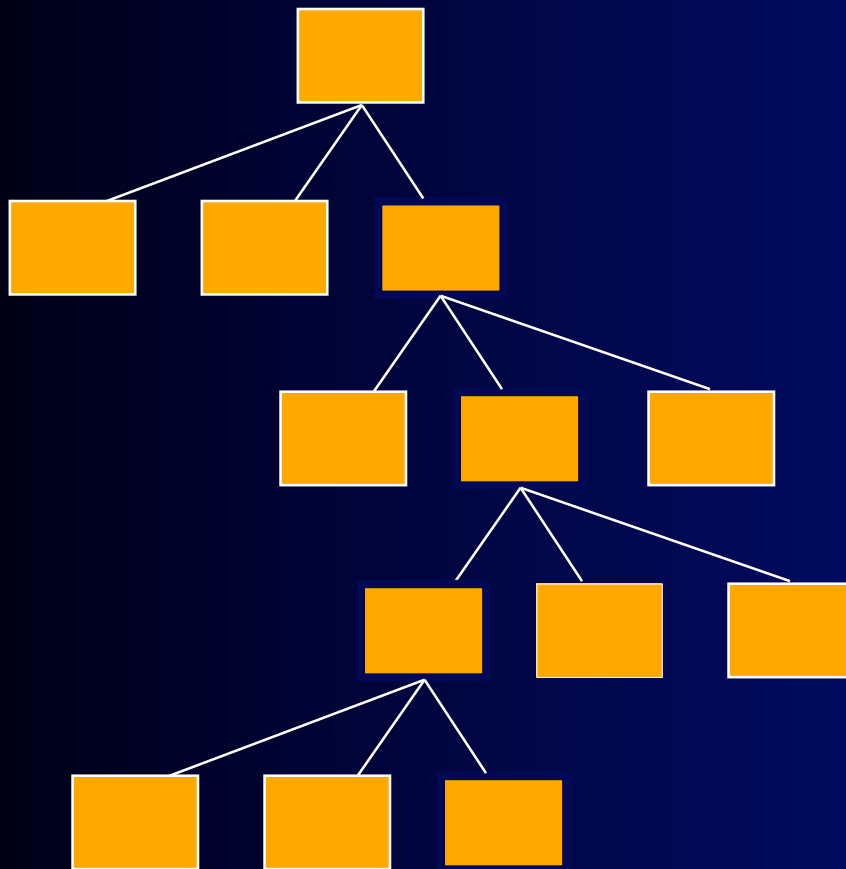
- Puzzles should be related to plot
 - 7th Guest had puzzles that had nothing to do with story
- Puzzles should be solved by what's available in the game: “game anthropology”
- Game shouldn't take 4 weeks, with 40 minutes of material
- Online help can avoid some frustration

IX. Online: MUDS, MOOS



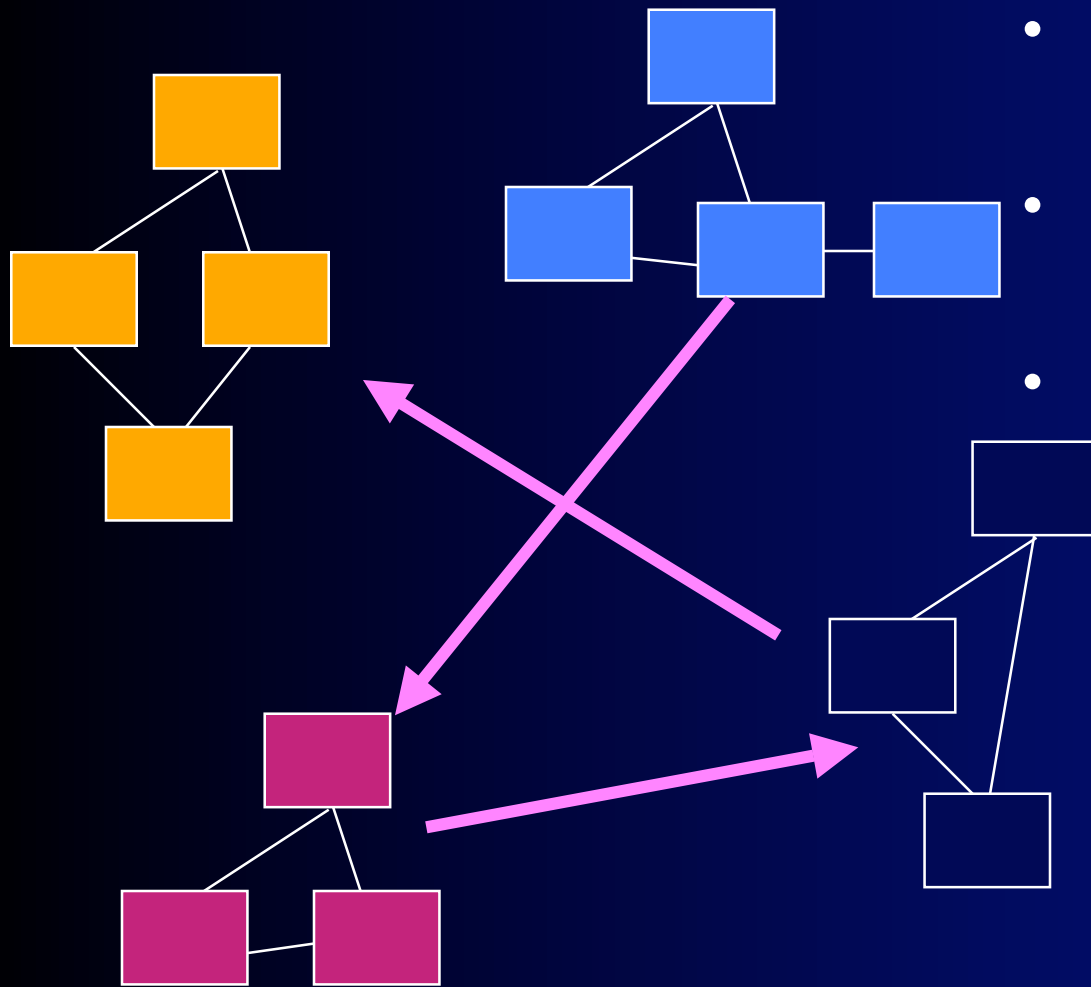
- Solves problem of developing interesting characters
- Lots of choices, but what do they mean?
- Hard to control story and plot

X. Dynamically Generate Plot



- Generate choices and plot as user makes choices
- Don't give choices that destroy overall plot

XI. Dynamically Order Plot Elements



- Have many small plot elements
- Dynamically chose from them based on user input
- Façade

XII. Computational Theater

- Mixture of computer actors and humans
- Computer/human director controls computer actors so that plot is always followed
- Online WestWorld
- Holodeck
- Beyond the state-of-the-art
 - Holy Grail on interactive drama
 - Neil Stephenson's *Diamond Age*

Interactive Drama

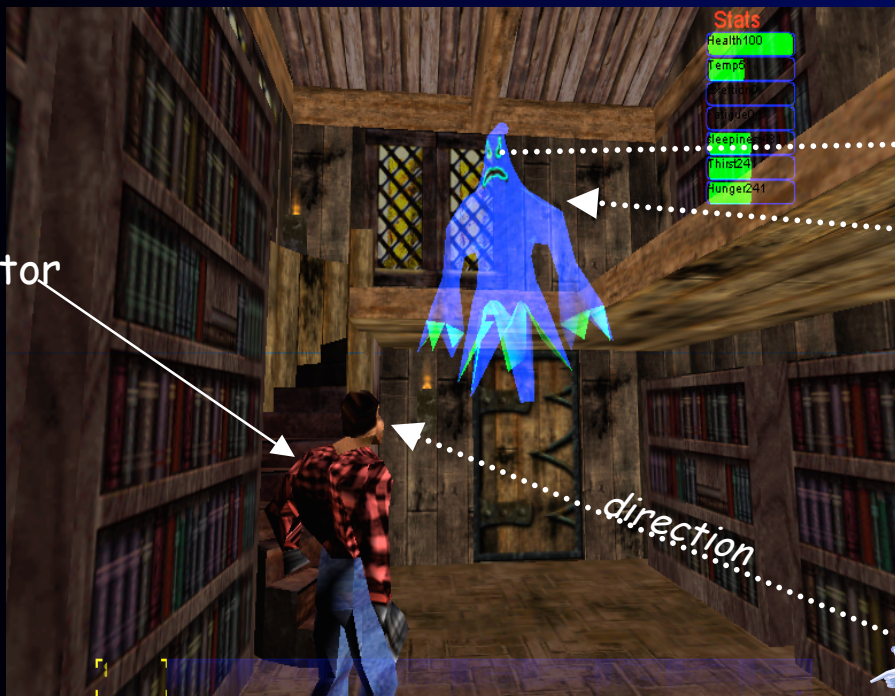
Human player



percepts

user actions

AI Actor



direction

abstract plot



AI Director



Human

Writer

Interactive game, populated by human-like AI characters with an AI director that dynamically controls an unfolding story.

Keys to Good Interaction

- Don't make people hunt for the interaction
 - Users shouldn't have to click on every object
 - Users shouldn't have to talk to everybody
- In theater, lighting, sound, position leads the audience to where the action will occur
- Character to character interaction is most interesting
 - What are their goals?
 - What do they know?
 - What are they planning to do?

Character to Character

- Toughest interface
 - Must pass the Turing test
 - Full natural language isn't there
 - Myst punted on this: no living characters
- Options:
 - Limited natural language - user guesses
 - List of specific choices - just try them all
 - List of abstract choices - in character
- Deliver the interaction you promise

Character Reaction

- Character response depends on mood, effect, ...
- Questions that you ask change mood
 - Return to Zork
- Character response changes as story progresses
 - Good way to move plot along

Characters: Video/Animation

- Video:
 - Sin of repetition -- obvious & unnatural
 - Takes lots of CD/DVD space
 - Easier for long linear scenes
 - More realistic
- Animation (Interactive Comics):
 - More flexible in action and special effects
 - Easier to splice in extra action
 - Can control detail of characters