



Narrative Direction

Soar: The Dungeon Master

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

A Scene: *The Bar Fight*

The User walks into an unfamiliar bar. Through the dim lights and smoky haze, he can make out a few distinct faces in the decently-sized crowd, none of whom he recognizes offhand. He sees a mid-20's female sitting at the bar by herself. Off in the corner he can make out a large, brutish man talking with some other men. There is also an attractive couple sitting at the bar talking with one another.

What happens now....?

Possible User Goals

- To get information...
- To get a date with someone...
- To be entertained...
- To play a bar game, like foosball or darts...
- To attack someone...
- To be entertained...

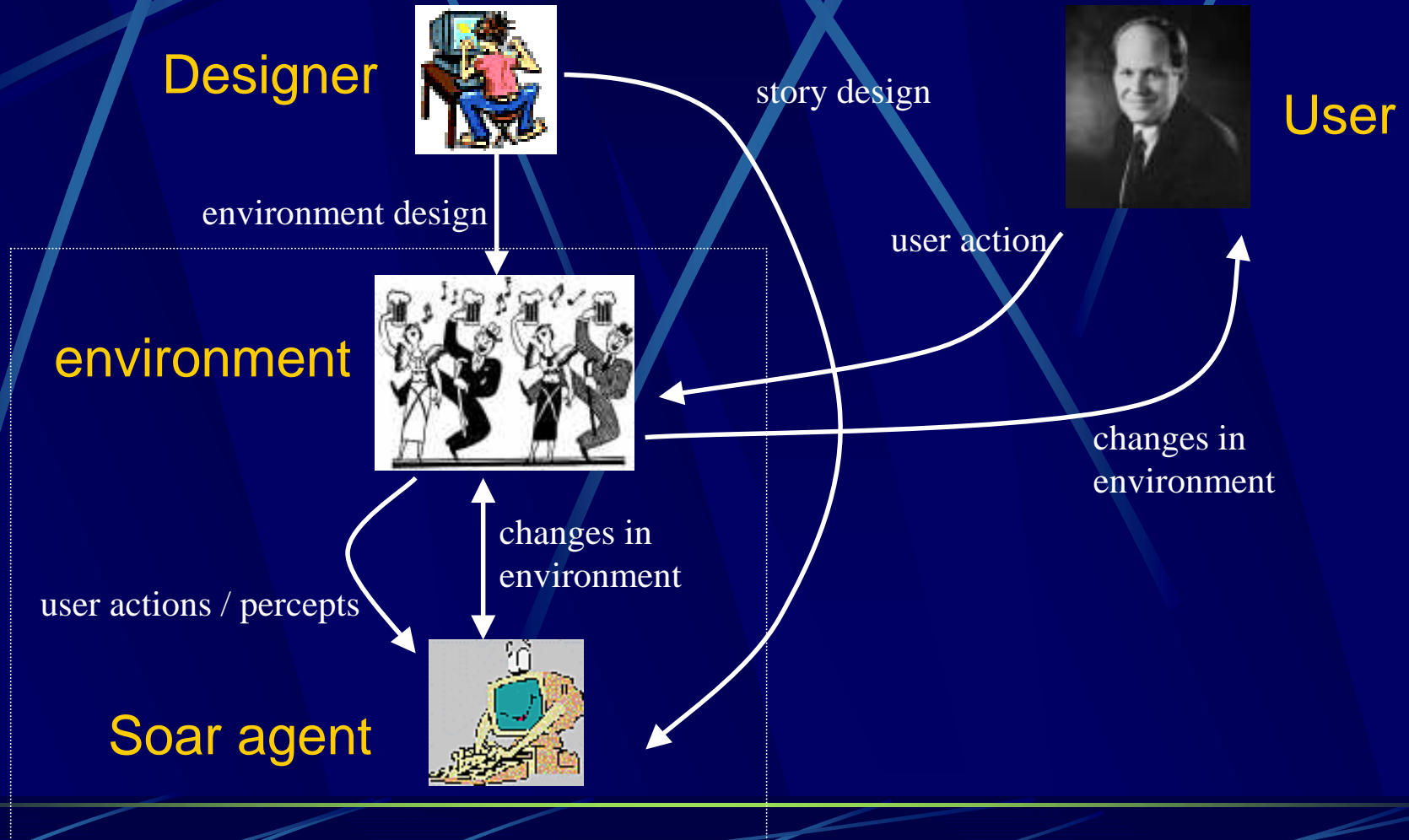
What *should* happen in the scene?

The Designer of the scene specifies the following plot: *the User should meet some character C and get in a bar fight with them.*

Problem Definition

- Technical objective: *to heuristically guide a User's interactions within a plot that has been abstractly defined by the Designer of the system*
- Artistic objective: *to offer the user a rich, yet flexible story-intensive experience that will be different, yet still dramatically interesting, with different interactions*

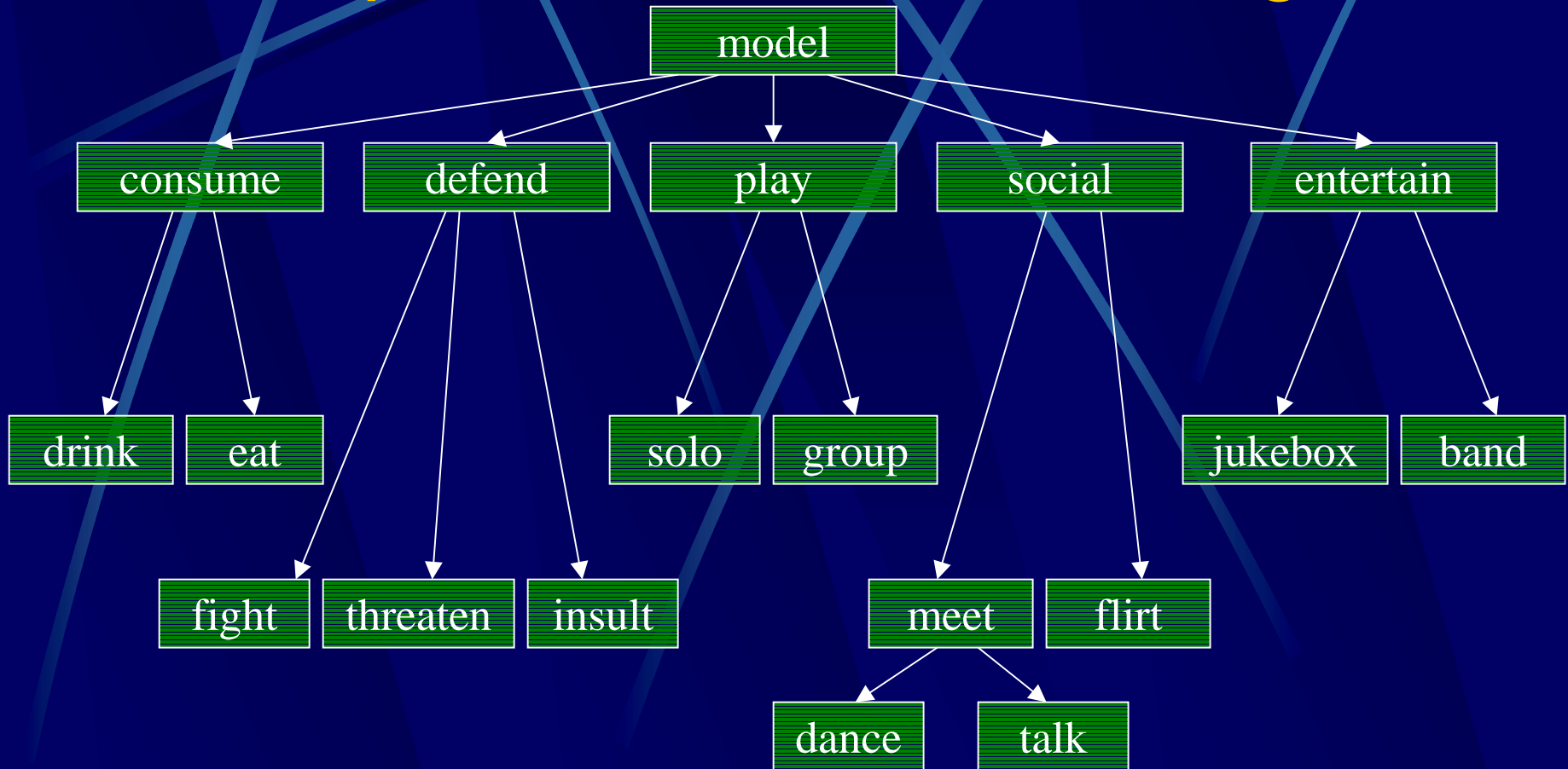
System Design



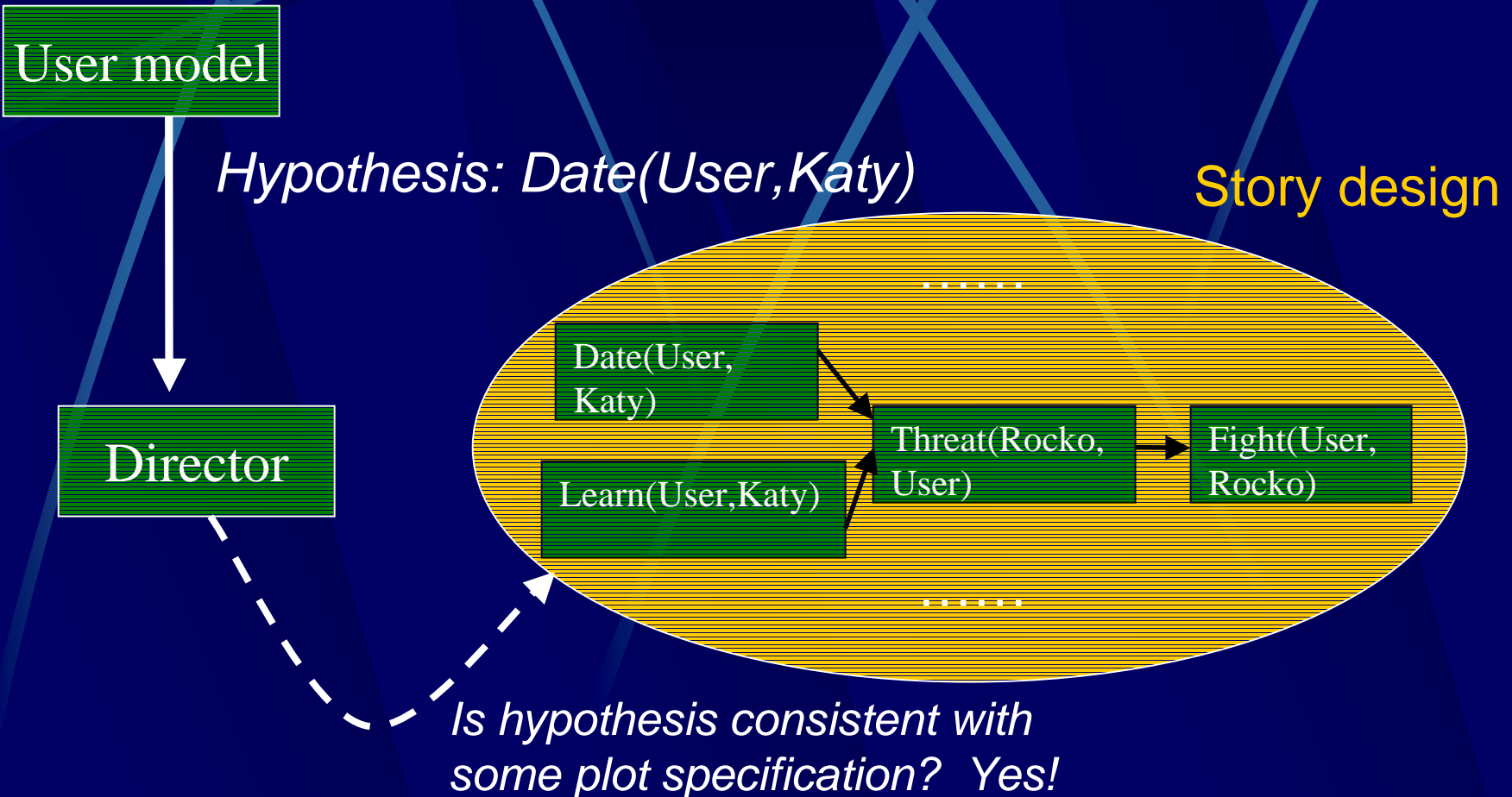
Our Approach

- The hook: user modeling combined with replanning. If we have a good hypothesis of the user's goal, we can make a more intelligent choice for plot direction
- Inspiration from cognitive tutoring (Anderson & Koedinger) and the QuakeBot (Laird)
- Soar used for both user modeling and direction

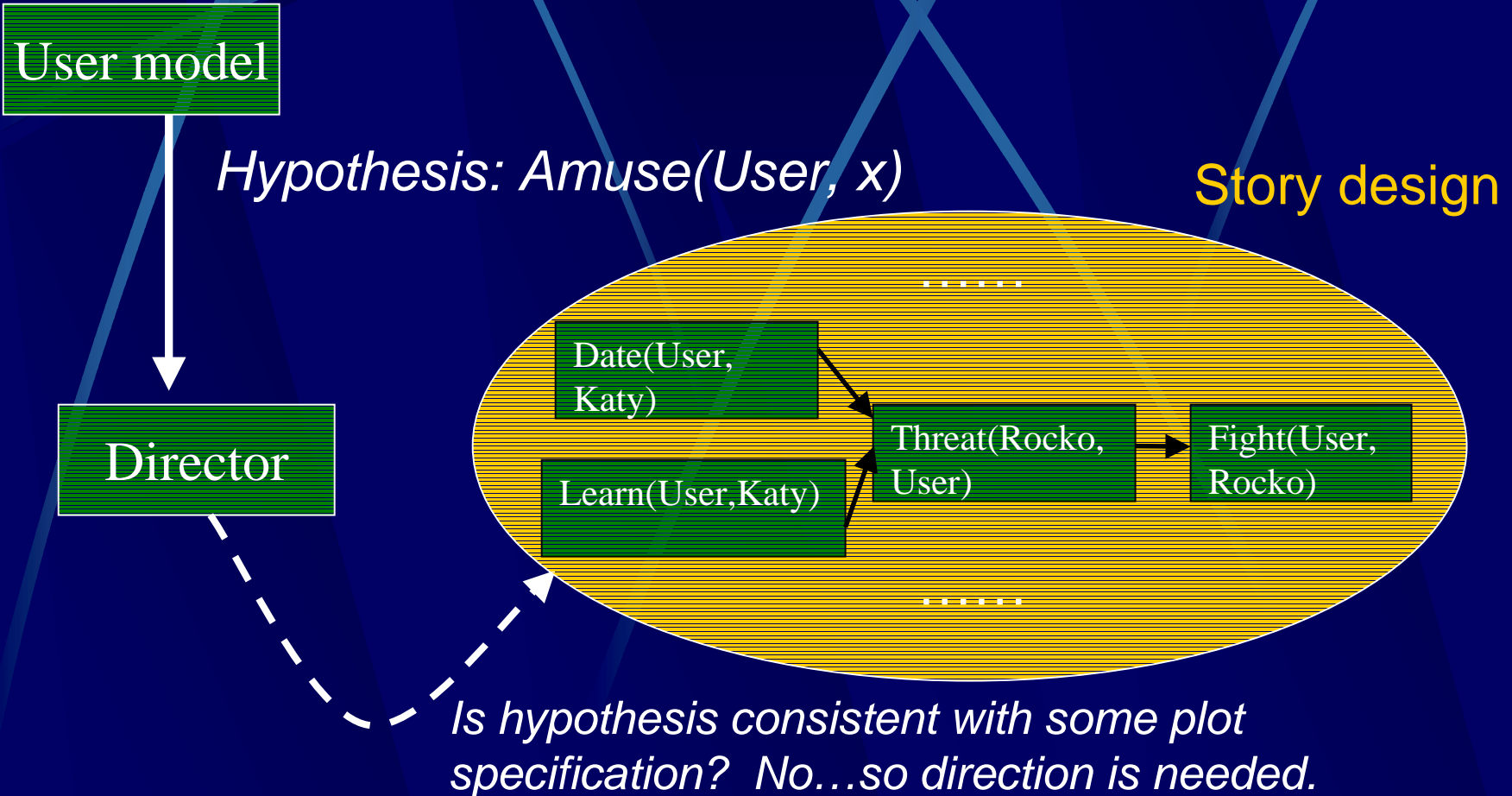
Operator Hierarchy



The Need for Direction



The Need for Direction (Cont.)



Direction

- The User's goal appears to be *amuse()*
- Problem: this won't lead to a bar fight
- One action the director could possibly execute: have Katy come and talk with the user
- This would "nudge" the user into a state agreeable with the story specification

Nuggets & Coal

- Nuggets
 - Completed, working user model prototype
 - Have a story-specification representation, complete with story goals and partial-order
 - Beginning work on 3-D environment (UM Soar group, CMU Escape)
- Coal
 - Sweating the small stuff
 - User model plausibility
 - Unanswered questions with direction design