Lecture 20: World and Character Modeling in Tale-Spin

CM 148
Kathleen Tuite
ktuite@ucsc.edu
May 20, 2015
Characters in story generation systems lack depth

• Universe (soap-opera plot generator)
  – Does model characters to some extent
  – Focuses on the author goals
    • Churn Liz and Neil (keep them apart)

• Minstrel (King Arthur stories)
  – Actors may have basic intentions
    • Kill or injure someone, posses berries
  – Meant to be a model of creativity
One way to model characters

- Set up a rich environment/world
- Populate it with characters that can reason and take action towards personal goals
- Let them loose!

- Potentially better than a choose your own adventure where you make choices but most of the world stays the same
Tale-Spin

• Created by James Meehan in 1976

• Tale-Spin was the first world and character simulation approach to story generation

• A story is generated as a consequence of character pursuing plans to accomplish goals

• The world simulator automatically infers consequences of actions taken by characters
Example story

• Let’s look at an example story generated by micro-talespin, the story of thirsty Irving and stubborn Joe (*story2*)

(IRVING THIRSTY (IRVING (LIKE (ACTOR JOE) (TO IRVING) (MODE (NEG)))))
(IRVING (DOMINATE (ACTOR JOE) (TO IRVING) (MODE (NEG)))))
(IRVING (DECEIVE (ACTOR JOE) (TO IRVING) (MODE (POS)))))
(IRVING (LIKE (ACTOR IRVING) (TO JOE) (MODE (NEG)))))
(JOE (DECEIVE (ACTOR IRVING) (TO JOE) (MODE (NEG)))))

• Lets look at the output for where we see character and world modeling happening
Model of storytelling

• For Tale-Spin, a story is the result of agents pursuing plans in the face of goals

• Let’s compare this with Ryan’s 8 narrative dimensions
  – Spatial and temporal dimension met easily (individuated existents, significant transformation, non-habitual action)
  – Mental dimensions are met (some of the participants are intelligent agents who pursue planful activity motivated by goals)
  – **Pragmatic dimensions are a problem**
    • No unified casual chain leading to closure – must carefully set initial conditions to establish this
    • The story actions are asserted as facts
    • System doesn’t explicitly reason about meaning of story

• How would we “interactivize” Tale-spin?
The Tale-Spin effect

• If Eliza is boom/bust, Tale-Spin has no boom. And play will not reveal its complexity.
• In fact, the audience sees boring stories.
• The main lesson of Tale-Spin: if we are creating media (games, fictions) fascinating, successful, hidden processes accomplish little.
• This is why “mis-spun” stories are popular:

  Henry Ant was thirsty. He walked over to the river bank where his good friend Bill Bird was sitting. Henry slipped and fell in the river. Gravity drowned.
Three Effects in *Expressive Processing*

- **Eliza Effect**
  - Seems amazingly impressive until the illusion breaks

- **Tale-Spin Effect**
  - Depth/power of the system is never revealed to the user

- **Sim City Effect**
  - A system that, through play, brings the player to an accurate understanding of the system’s internal operations
Dynamics for Designers

• Will Wright at GDC 2003

• https://www.youtube.com/watch?v=HMS9Rq43Fjw

• http://www.slideshare.net/geoffhomon/gdc2003-will-wright-presentation