

Video Game Play and Design: Procedural Directions

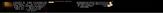


Janet Murray

Director of Graduate Studies
Information Design and Technology
Program,
Georgia Institute of Technology



Procedural Character Design Janet Murray



Janet Murray

Computer as Storytelling Medium



- Can there be significant new forms of storytelling in the new digital medium?
- Yes, because it has its own expressive properties



Janet Murray

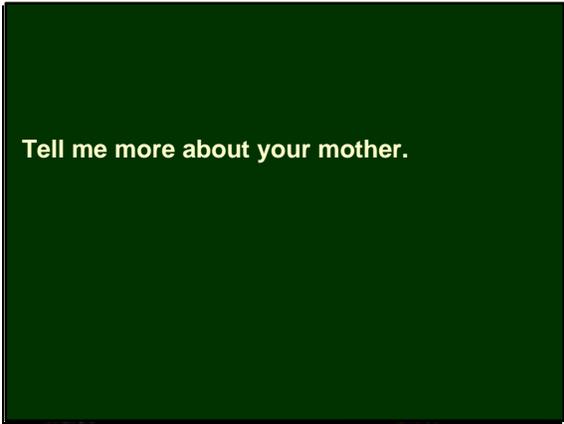
What would it take to get there?



Janet Murray

Characters Past





Janet Murray

Eliza's animation did NOT involve

- Still images
- Moving images
- Sound
- "Multi" media

Tell me more about your mother

Joseph Weizenbaum, Eliza 1966



Janet Murray

Why Eliza Works

Tell me more about your mother

- Pattern matching
- Shtick=formula
- Scripting the interactor
- Scenario!!

Joseph Weizenbaum, Eliza 1966



Janet Murray

Why Woggles Worked



- Readable cartoon gestures of greeting, inviting, fear, menace...
- Shrimp's programming glitch provided needed dramatic focus
- Believability not realism

Joseph Bates, Woggles 1992



Janet Murray

Virtual Pets

Silas, Bruce Blumberg, MIT 1994




Janet Murray

Petz

Dogz, PFMagic 1990s




Autonomous Agent Architectures

Silas

- Based on science of animal behavior
- Elaborated model of inner states
- Everyday props, e.g. ball
- More complex, less dramatic



Dogz & Catz

- Based on shtick of cartoon critters
- Expressible model of inner states
- Dramatic props, e.g. mouse, catnip
- Less complex, more fun



Lessons from the Past

- Scenario shapes expectation
- Props shape participation
- Don't program what you cannot display
- Believability not realism
- Character elicited by interaction



Characters Present



Characters in Immersive Worlds

- Genre fiction world provides scenarios, props, potential dramatic actions
- Detailing reinforces believability
- Range of characters limited



Weapon/Target Characters



Quake, id software



Targets or Characters?

- Do they have their own trajectories?
- Do they move and act when we can't see them?
- Are they most interesting when on fire?



Deus Ex



Buddy Character



Paul Deus Ex

Hero and brother/sidekick are extensions of their weaponry



MMORGs: Massively Multiplayer Online Roleplaying Game Characters

- Expressive gestures derived from genre scenarios
- Need for dramatic compression
- More backstory than can be expressed in gameplay

Asheron's Call, 1999



Will Wright's The Sims (2000)

Yuppy scenario: shop, work, party, marry, parent
Persistent, detailed, participatory world



Why the Sims Works

- Readable social actions
- Bildungsroman plot, courtship and work ethic scenarios
- Expressible states
- BUT: problem of focus remains



Improving Character Simulations



Dramatic Compression

- Time
- Event structure
- Episodic structure

Dramatic Actions

- Fewer Chores!
- Dramatic Props



Characters Future



Parameterized Characters

Questing hero:

- Heritage Group
- Appearance
- Clothing
- Profession
- Attributes
- Skills

Parameterized Characters

Roommate:

- Neat
- Outgoing
- Active
- Playful
- Nice

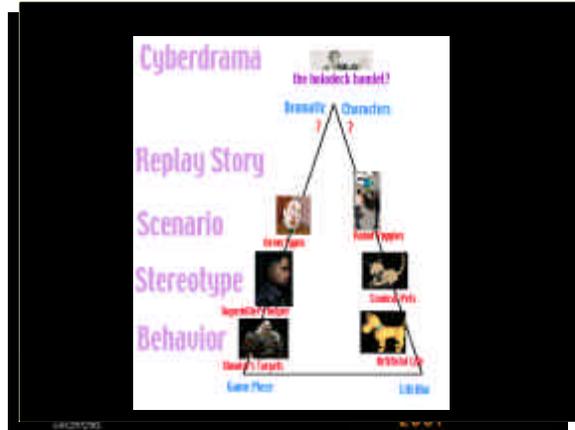


Parameterized Characters



Danish Prince??

- melancholy?
- tolerance for flattery?
- irony?
- self-doubt?
- homicidal/suicidal?
- madness meter?!



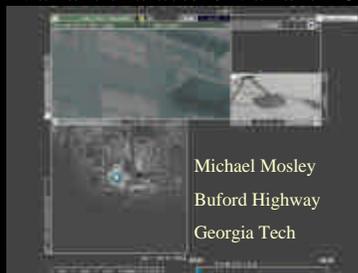
Sarah Cooper: Reliving Last Night





Janet Murray

Variant character / Variant POV



Michael Mosley
Buford Highway
Georgia Tech

SIGGRAPH
2001

Janet Murray

Creative Applications Lab

Sarah Cooper
Reliving Last Night

Michael Mosely
Buford Highway



SIGGRAPH
2001

Janet Murray

Creative Applications Lab

Sarah Cooper
Reliving Last Night

Michael Mosely
Buford Highway



SIGGRAPH
2001

Janet Murray

Creative Applications Lab

Sarah Cooper
Reliving Last Night

Michael Mosely
Buford Highway



SIGGRAPH
2001

Video Game Play and Design: Procedural Directions

SIGGRAPH
2001