

Strength of Character: AI Personalities in Video Games

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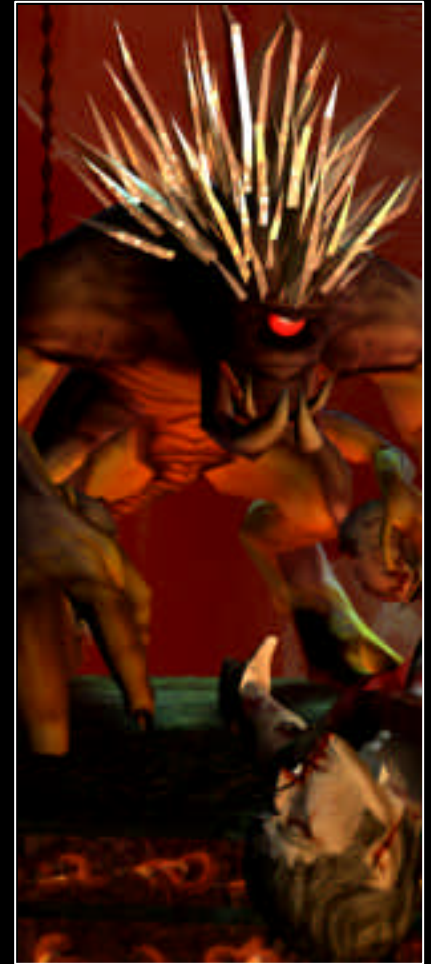
Mind Games: Why Games is Good AI

- High Level Problems
- Expectations of Behavior
 - Immersive world
 - Familiar characters
 - Familiar setting (living room)
- Audience
- Testing



Not Your Daddy's AI Research

- Narrative
 - Each character is situated & embodied
 - Characters can deliver narrative
- Shortcuts
 - Animations
 - Voice-overs
 - Hints, scripting, triggers
- No Cables
- No Wheels
- No Power



Building a Convincing Character

Many Elements

- Appearance
- Body Language
- Facial Expressions
- Environmental Awareness
- Memory
- Responsiveness

Most future game types NEED it!!!



White Hats and Pearl Handled Revolvers

- *Appearance != AI*
- But, *Appearance + AI + X = Character*
- Stereotypes
- Accessorize!



Good Guy or Bad Guy?



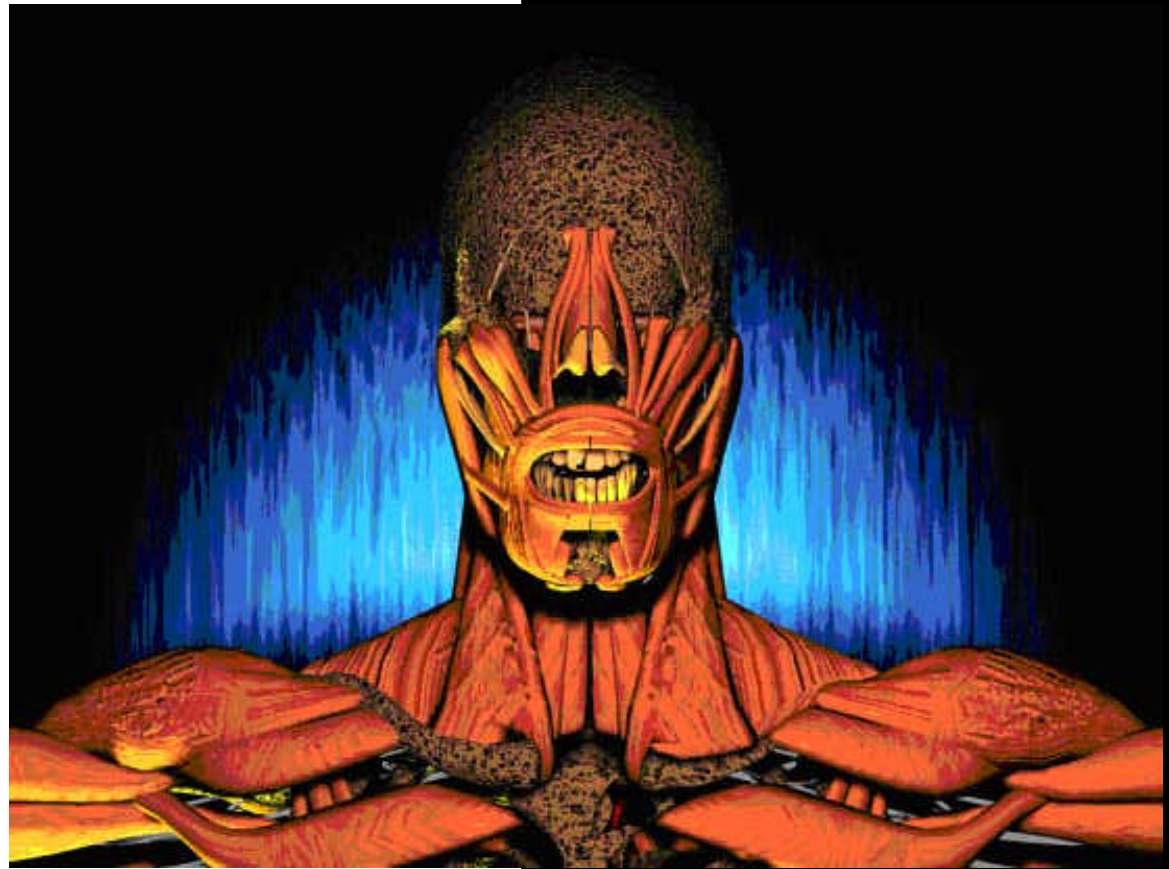
Good Guy
or
Bad Guy?



Good Guy or Bad Guy?



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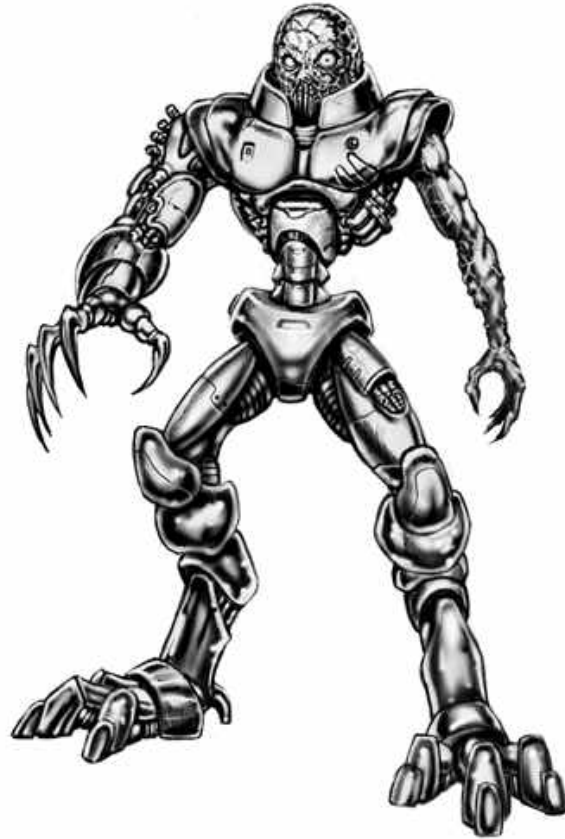
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Body Language

- Marvin the paranoid android
- Body language for health
- ...for mood
- ...for personality

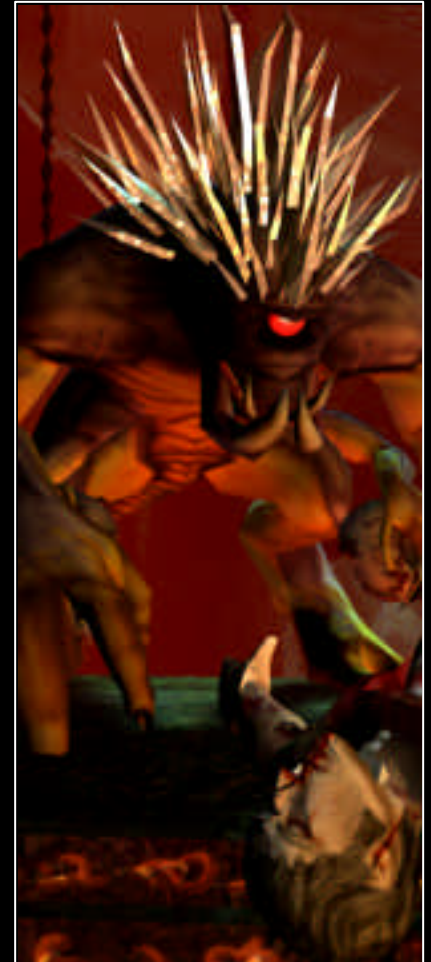
How to generate body language?

- Custom animations (mocap/hand)
- Animation blending
- IK feed?



Snarl & You Get Better Service

- It turns out you'll get more dates if you smile
- Large catalog of pop culture expressions
 - Eastwood's squint
 - Indiana Jones
 - Hannibal Lector's smile
 - Darth Vader's expressionlessness
- How to trigger expressions?
 - Internal mood model
 - Scripting
- Curiously, you don't often see the main character's expressions!



Dude, where's my avatar?

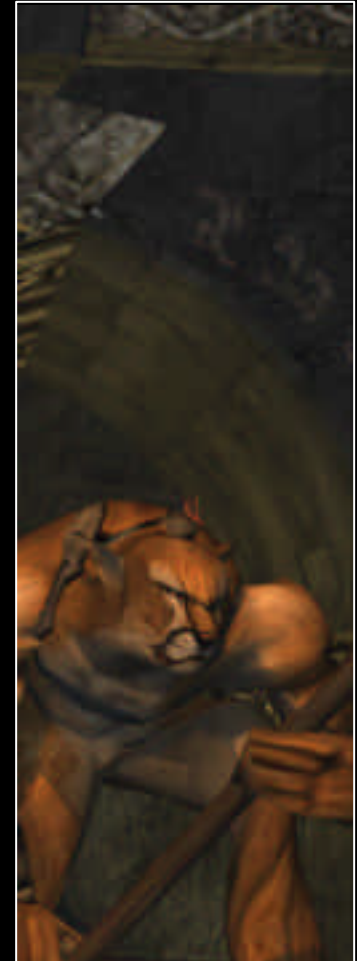
- Don't walk into things!
- Hints for where to hide, explore, shoot from
- "Dynamic Battle Choreography"
- Move relative to player
 - In Combat
 - When talking to player
- Camera control



Memories

Immersion can be broken when characters don't remember good/bad events.

- Short Term
 - Did the player just visit this shopkeeper?
 - Which enemy was attacking whom?
- Long Term
 - Is the player's leadership helping NPC?
 - If NPC wanders ahead is (s)he getting hurt?
 - Is the player sharing the loot/glory?



Talking Back

What's the appeal of MMOGs?

- It's fun to talk to someone and have them
- talk back. Usually.
- Reminisce/Paxton Factor
- Mailbox Smashing Factor

But why AI instead?

- AI's can drive the story
- Player gets to be the hero

What can this give us?

- Mysteries, Romance, Detective Stories,
Real Role Playing



DEMO

- Don't forget to run the demo, Ian



Conclusions

- Games are where the first convincing AI personalities will emerge.



Conclusions

- Games are where the first convincing AI personalities will emerge.
 - High level problem set
 - Art
 - Music
 - Voice
 - Audience
 - Money

