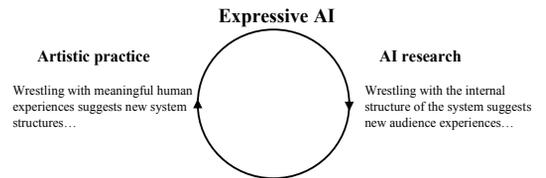


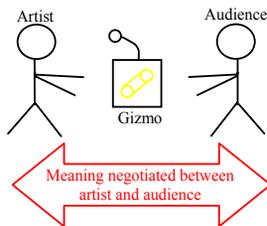
Cultural machines

Michael Mateas
Carnegie Mellon University

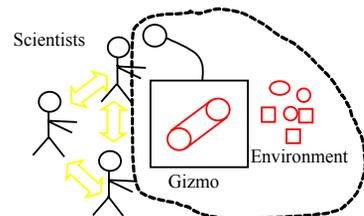
Combining meaning and structure



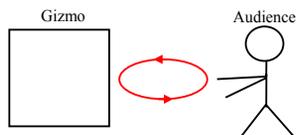
Conversation metaphor (Art)



Construction metaphor (AI)

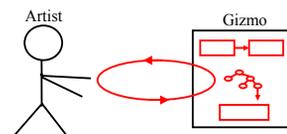


Interpretive affordance



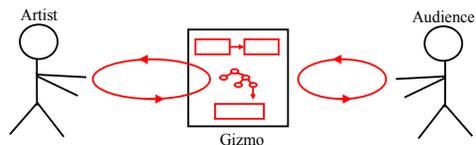
- Resources supporting interpretation
 - Narrative affordance: narrating the artwork
 - Intentional affordance: goals for interaction

Authorial affordance



- Inscription of authorial intention
 - Achieve a fit between architecture and concept
 - Express intent within the architecture

Integrate affordances



An architecture is a machine to think with

Office Plant #1



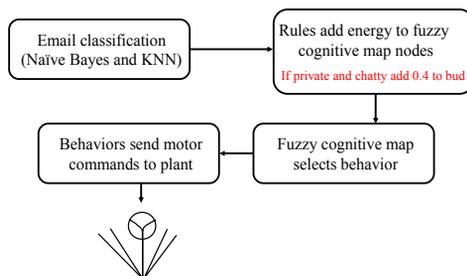
- Creates a background presence
- Sorts incoming email into social and emotional categories
- Behavior is a function of the email received

Collaborator: Marc Böhlen, Media Studies, SUNY Buffalo

Audience experience



Office Plant architecture

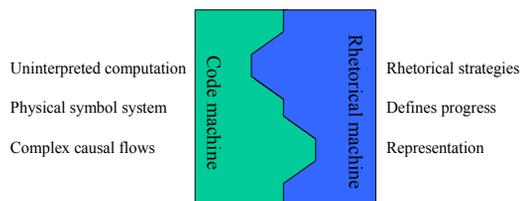


What is an affordance?

An affordance is a perceived, actionable property of an environment

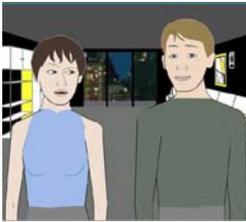
- Introduced by James Gibson in the ecological approach to perception
 - Objective properties
- Appropriated by Don Norman for discussing design in *The Psychology of Everyday Things*
 - Perceived, culturally dependent properties

Computation is always double



Affordances defined by simultaneous design of the rhetorical and code machine

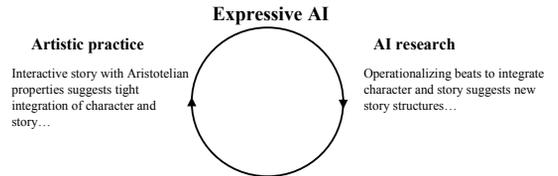
Façade



- Dramatic world inhabited by computer controlled characters (believable agents)
- The user (player) plays a protagonist within the story, first-person point of view
- The player experiences a story with a dramatic arc

Collaborator: Andrew Stern, independent artist and researcher

Example: Façade



Why AI-based art?

Why not database art, or network art or...?

- Both AI and art are concerned with representation
 - AI promiscuously couples with other fields
 - AI not afraid of *meaning*
- AI systems are subjects (inter-semiosis)
- Both AI and art are ways of knowing by making

Plug

Starting January 2003 at Georgia Tech
Literature, Communication and Culture and College of Computing

- Expressive AI research group
 - Interactive story (IF, interactive drama, story generation)
 - Robotic sculpture (perception and action)
 - AI and video games (game studies)
 - AI and cultural theory (critical technical practice)
 - Models of creativity (generative architectures)
 - Believable agents (personality and emotion)