Alien Presence

Using Artificial Intelligence to Make Things Strange

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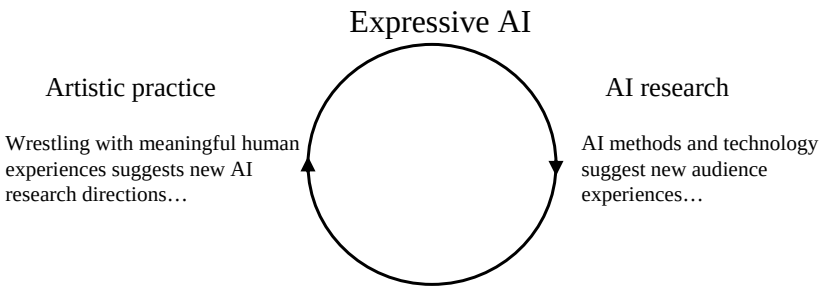
Combine AI Research and Art Practice



Examples

Terminal Time

Office Plant #1

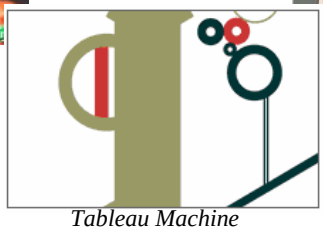


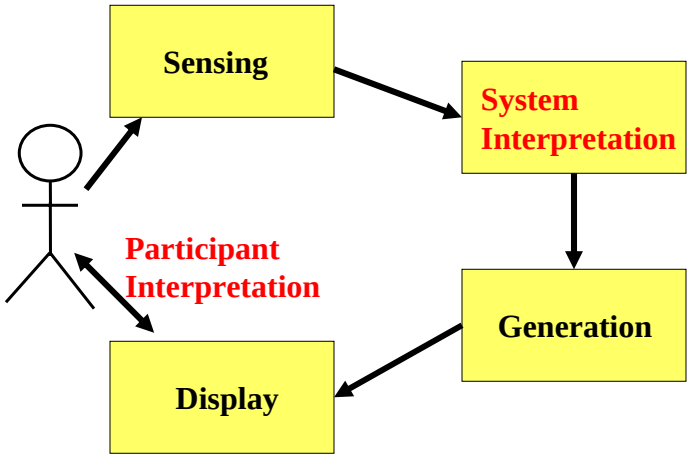
Tableau Machine

Facade

Goals of Alien Presence

- **Offer participants opportunities to reflect on their own activity through making strange**
- **Alien Presence accomplishes this by providing a non-human sense of aliveness and awareness**
- **Use AI techniques to**
  - Perform an idiosyncratic, author-given interpretation
  - Generate an affectively and aesthetically engaging display
- **The goal is *not* to model goals and tasks (ubiquitous computing)**
- **The goal is *not* to encode sensed variables in a display (information visualization)**

Cycle of Interpretation



Case study: 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

Architecture

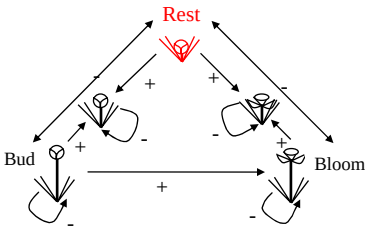
Sensing

Sense individual workday mood
Proxy: Full text of email stream

Interpretation

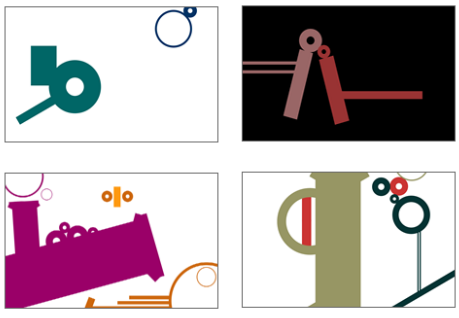
Statistical text classification
Rules mapping to FCM

Generation



Display

Case Study: Tableau Machine



Background presence reflecting the mood of the home

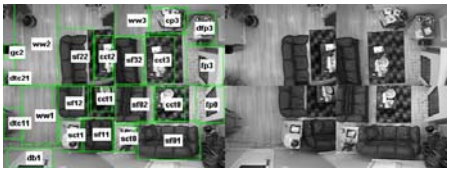
Uses cameras positioned throughout the home to sense physical activity in salient "zones"

Generates a display as a function of the activity in these zones

Collaborators: Zach Pousman, Mario Romero

Architecture

Sensing



Interpretation

Map temporal patterns of region activity to social *energy*, *density*, and *flow*

Generation

Rule-based system generates display elements as a function of energy, density and flow

Display

AI for Ambient Intelligence

- **AI supports complex mappings between sensing and display**
- **Different architectures offer different affordances to the designer**
- **The affective presence agenda informs work in machine interpretation while avoiding AI-completeness**
- **Support co-interpretation – avoid simple one-to-one mappings or incoherence**

Research Issues

- **Balancing authorship and empirical study in feature selection and interpretation**
- **Generating a sense of an alien "other" while avoiding anthropomorphism**
- **Matching expressive affordances of display to the interpretation**
- **Evaluating alien presence**

Interaction Logics

- **Currently games are based (almost) solely on graphical logic**
  - Movement
  - Collision detection
- **Games are computer graphics made *playable***
- **So all topics a game might take on must be expressed as movement and collision of graphical objects**
  - "Skinning"

Many Possible Interaction Logics

- **Simulation**
  - Cause and effect chains in intricate, recursive networks
  - Simulation has been made *playable* (Will Wright, wargames)
- **Text**
  - Word relationships (synonyms, antonyms, hyper/hyponyms, etymology, …), meaning, …
- **Character & Narrative**
  - Emotion, backstory, through lines, relationships, …
  - Premise, tension, resolution, economy, …
- **Rhetoric and ideology**
  - Bias, communicative intent, social class, politics, …
- **Everyday life**
  - Social interaction, waiting, resting, fighting, boredom, …