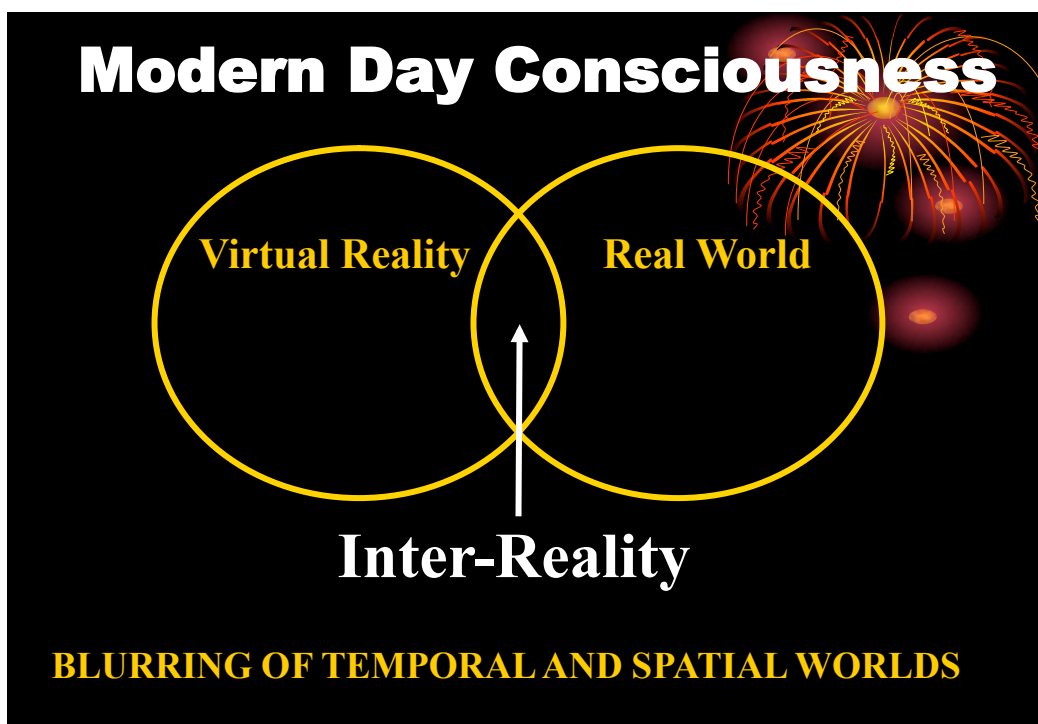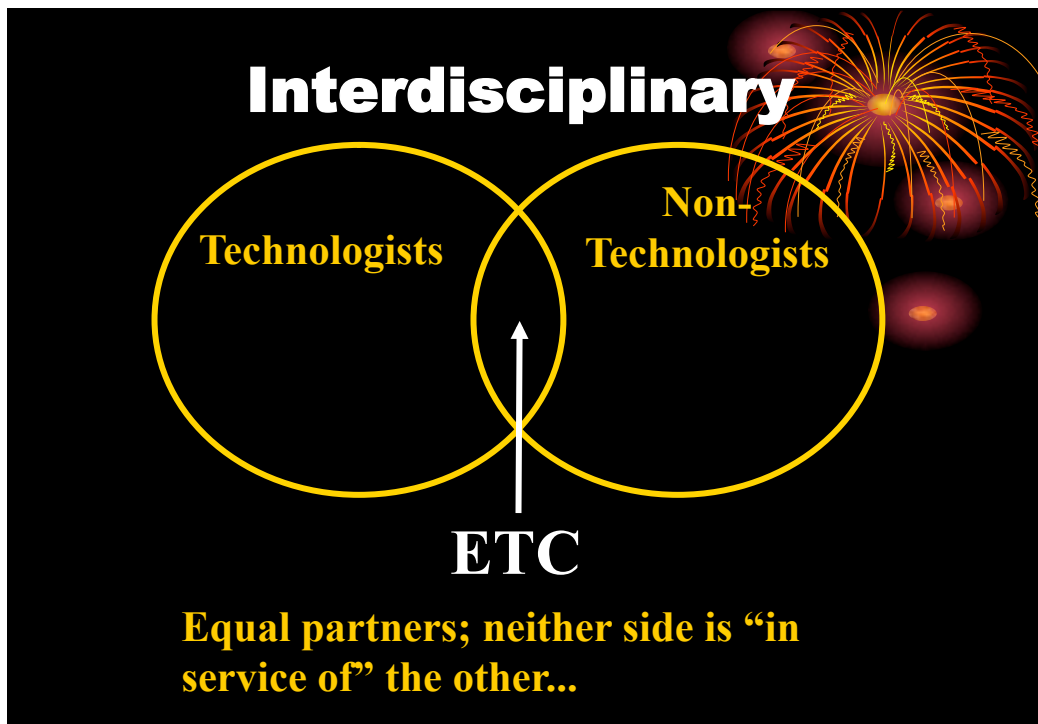**Don Marinelli**
Co-Founder, ETC-Global

Don Marinelli (Drama) Randy Pausch (CS)
Year 2000

Three Pillars of the ETC

- **Educational Program (Master of Entertainment Technology - MET)**
- **Industry Research**
  - **For-Profit Corporate sponsors**
  - **Not-for-Profit Sponsors**
    - **Hospitals, museums, science centers, schools, charitable organizations**
- **Entrepreneurialism**
  - **Student created IP**
  - **Start-ups**

Interdisciplinary

Technologists

Non-Technologists

ETC

Equal partners; neither side is "in service of" the other...

Modern Day Consciousness

Virtual Reality

Real World

Inter-Reality

BLURRING OF TEMPORAL AND SPATIAL WORLDS

Triumph of the Gamer

The *SATE* Curriculum
Advocated by the Themed Entertainment Association (TEA)

- **STORYTELLING**
- **Architecture**
- **Technology**
- **Experience**

The *New* Poetics

- **Plot**
- **Character**
- **Theme**
- **Diction**
- **Music**
- **Spectacle**

- **Interactivity**
  - **Immersion**
  - **Agency & Navigation**
  - **Transformation**

"*Create a world that is more real than reality.*" -

"Virtual reality can be defined as "an event or entity that is real in effect, but not in fact.""

Janet Murray, *Hamlet on the Holodeck*

A *SATE* CURRICULUM: *STORYTELLING*

- **Storytelling is a craft.**
- **"Climactic Plot Structure"**
- **All students take *Improvisational Acting* focusing on non-linear narrative and team building.**
- ***Visual Story* – tell a story in pictures**
- ***Focus is Always How Technology Facilitates Story.***

Teaching the Story B[...]
the Story:

- Cause-and-Effect Understanding
- Trial and Error Exercise
- Values, Culture, Myths and the Process of Socialization
- Problem-Solving Techniques
- Probabilistic Reasoning
- Teleological Reasoning
- Compression of Life
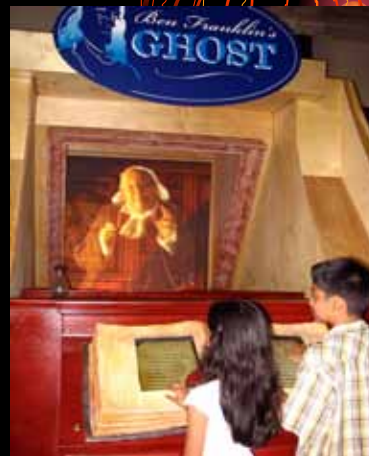- Discerning Meaning & Wisdom

Carnegie Library
My Story Maker

Ben Franklin *Synthetic Interview* - Philadelphia

- *Synthetic Interview* is a proprietary CMU technology.

- Synthetic Interviews have been created for:

- Albert Einstein
- Charles Darwin
- Abraham Lincoln
- George Westinghouse
- Me!

Living History – U.S.S. Requin WWII & Cold War Submarine

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A *SATE* CURRICULUM: *ARCHITECTURE*

- Within the realm of digital media, architecture has a mathematical basis in the form of polygons.

- Polygons are the molecules, the building blocks, of virtual space.

- They can be combined to form various shapes with specific properties.

A *SATE* CURRICULUM: *ARCHITECTURE*

Virtual architecture is anatomical.

It features a "skeletal" wireframe upon which is laid a "musculature" of texture, color, light, reflective qualities, and other detail.

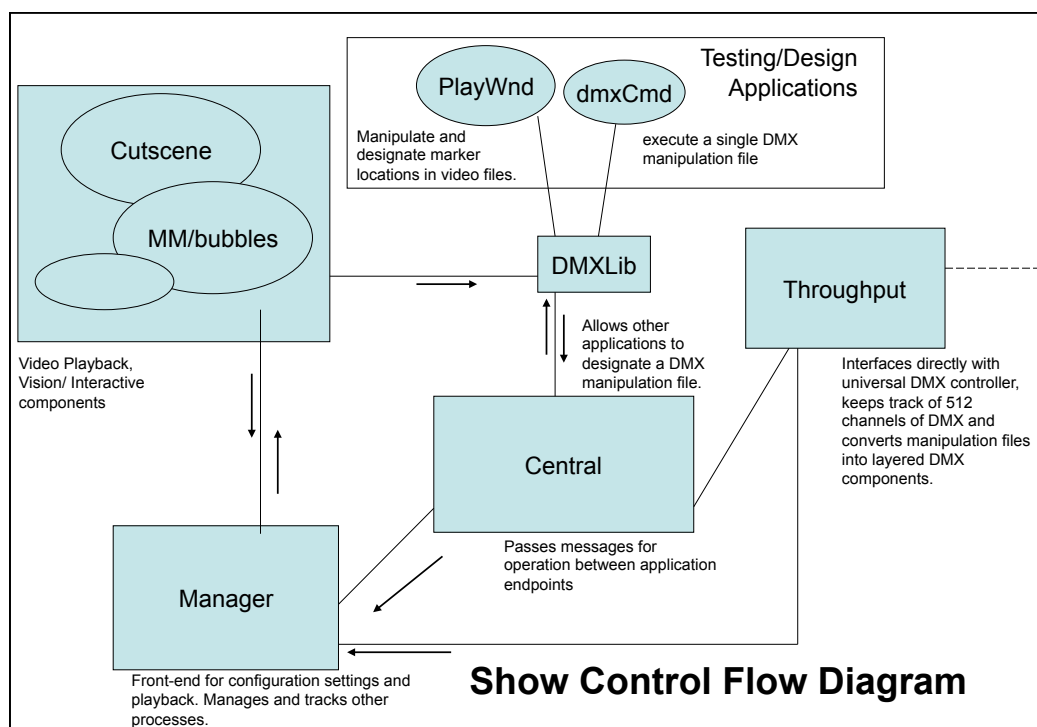Walls are created via collision detection algorithms.

Mass is essentially an illusion.

Interactive Web sites/MMORPGs

SPORE is a Complete Ecosystem

Testing/Design Applications

PlayWnd

dmxCmd

Manipulate and designate marker locations in video files.

execute a single DMX manipulation file

Cutscene

MM/bubbles

Video Playback, Vision/ Interactive components

DMXLib

Allows other applications to designate a DMX manipulation file.

Throughput

Interfaces directly with universal DMX controller, keeps track of 512 channels of DMX and converts manipulation files into layered DMX components.

Central

Passes messages for operation between application endpoints

Manager

Front-end for configuration settings and playback. Manages and tracks other processes.

Show Control Flow Diagram

A *SATE* CURRICULUM: *ARCHITECTURE*

- We focus instead on creating our own themed environment; with the goal of making the ETC Carnegie Mellon University's theme park.

A *SATE* CURRICULUM: *ARCHITECTURE*

SATE CURRICULUM: *ARCHITECTURE*
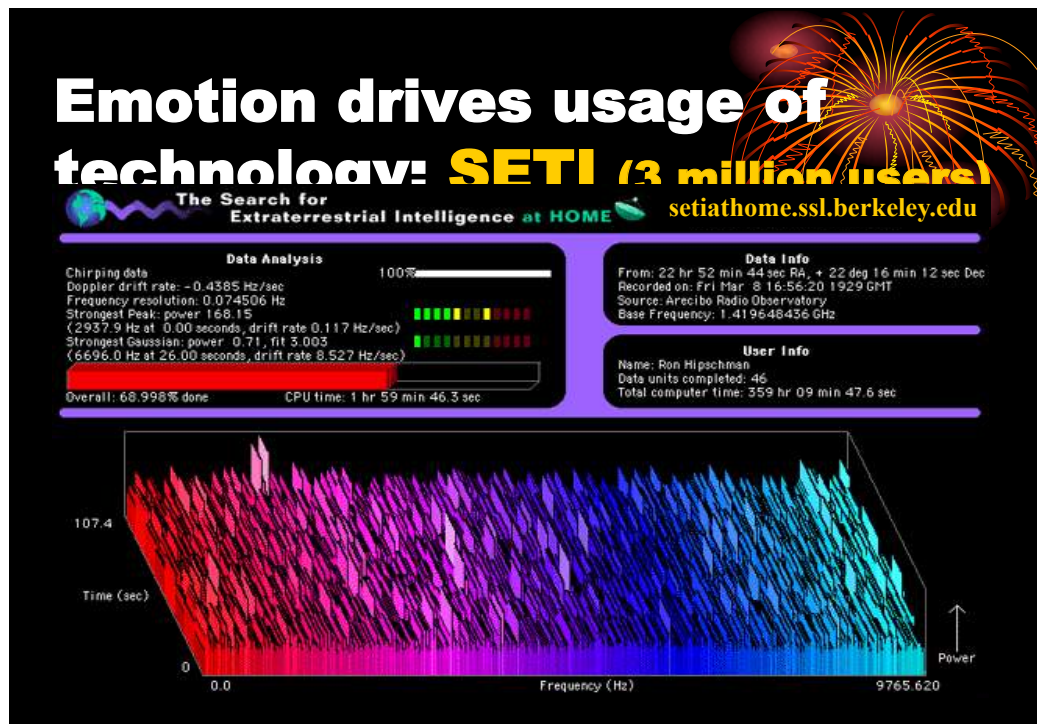

A *SATE* CURRICULUM: *ARCHITECTURE*

A *SATE* CURRICULUM: *ARCHITECTURE*

The *SATE* Curriculum

Advocated by the Themed Entertainment Association (TEA)

- •Storytelling
- •Architecture
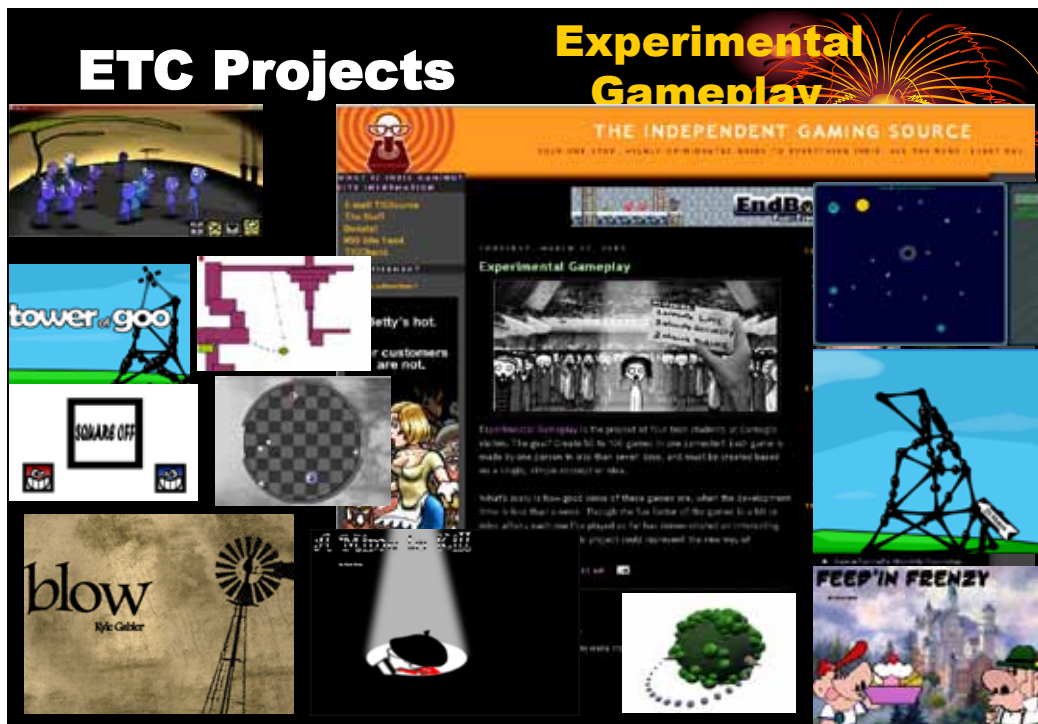- •TECHNOLOGY
- •Experience

A *SATE* CURRICULUM: *TECHNOLOGY*

- **Augmented Reality**
- **Alternate Reality**
- **4D Immersive Experiences**
- **Aggregation/experimentation of Input & Display Technologies**
- **Expanded Applications of New and Existing Technologies:**
  - **Edutainment**
  - **Medical Diagnosis & Therapy**
  - **Information and Creation Management**
  - **Advanced Social Networking**

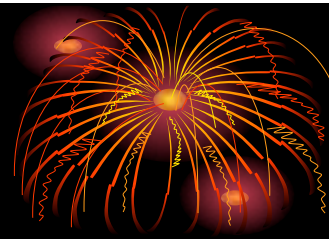## ETC Projects

Experimental Gameplay
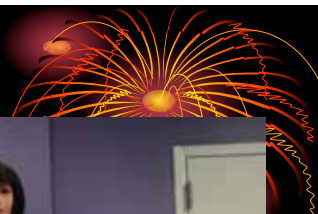
ETC Projects

Jam-O-Drum

- ANIMATEERING TECHNOLOGY AT PITTSBURGH CHILDRENS MUSEUM

GIVE KIDS THE WORLD
KISSIMMEE, FLORIDA

A *SATE* CURRICULUM: *TECHNOLOGY*

Quasi was created by a team of students at Carnegie Mellon's Entertainment Technology Center.

Humanoid Robotics

People Will Show us How to Use Technology

- All we need to do is watch, look, and listen.
- Then we can properly define the question.

Duh.....................

The *SATE* Curriculum
Advocated by the Themed Entertainment Association (TEA)

- **Storytelling**
- **Architecture**
- **Technology**
- **EXPERIENCE**

Riders on "The Incredible Coaster" are thrust upward 150 feet in less than 3 seconds.

Building Virtual Worlds Performance

Building Virtual Worlds

White Water Rafting

- Start Getting Students OUTSIDE
- Reintroduce DANGER
- Ask for an artistic/creative interpretation of the adventure
- Share

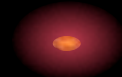# Ropes Course Team Building Exercises
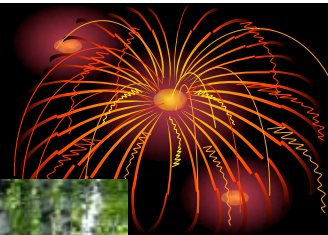
Hiking Field Trips

Horseback riding

Off Road Driving

- Zeppelin Ride over San Francisco/ Silicon Valley

A *SATE* CURRICULUM: *EXPERIENCE*

- **Myriad Field & Adventure Trips Designed to Establish an Experiential Vocabulary:**
  - **Annual West Coast Trip**
  - **Muir Woods & Other Immersive Experiences**
  - **Hiking/Biking/Horseback Riding**
  - **Ropes/Obstacle Course**
  - **Spelunking**
  - **Whitewater Rafting**
  - **Paintball**
  - **Off-road activities (Hummers, ATVs)**
  - **Ocean Cruises**

The *SATE* Curriculum

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