theatre.exe

Interactive Theater with Agency

Overview

Introduction

       Recap of our project

       Our Focus

       Deliverables

Before Halves

       Taxonomy and Research

       Prototypes

Since Halves

       Pivots

       Currently

Feedback

Project logline

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" How can we make a **meaningful interactive experience** by using **technology** as a vital, intrinsic part of a **live performance**. "
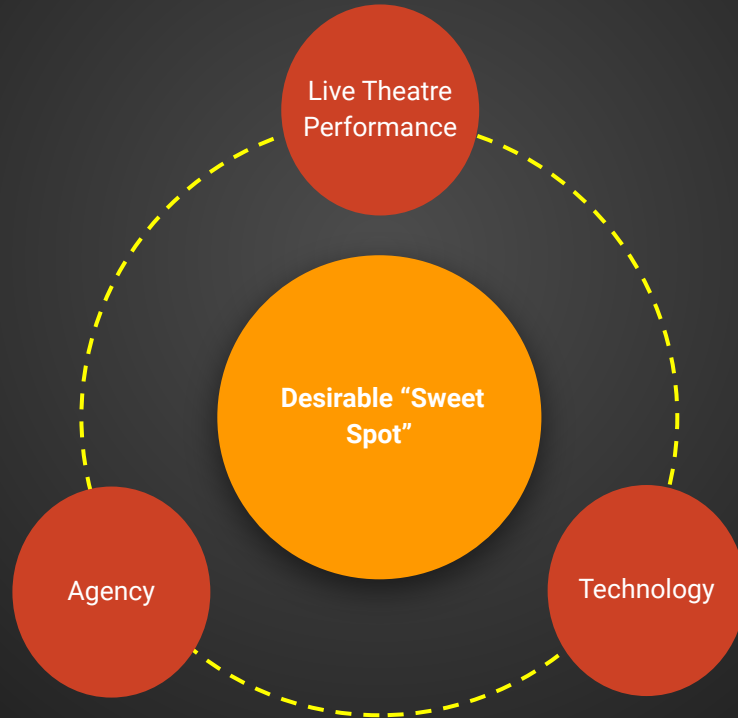
Project logline
——

meaningful interactive experience
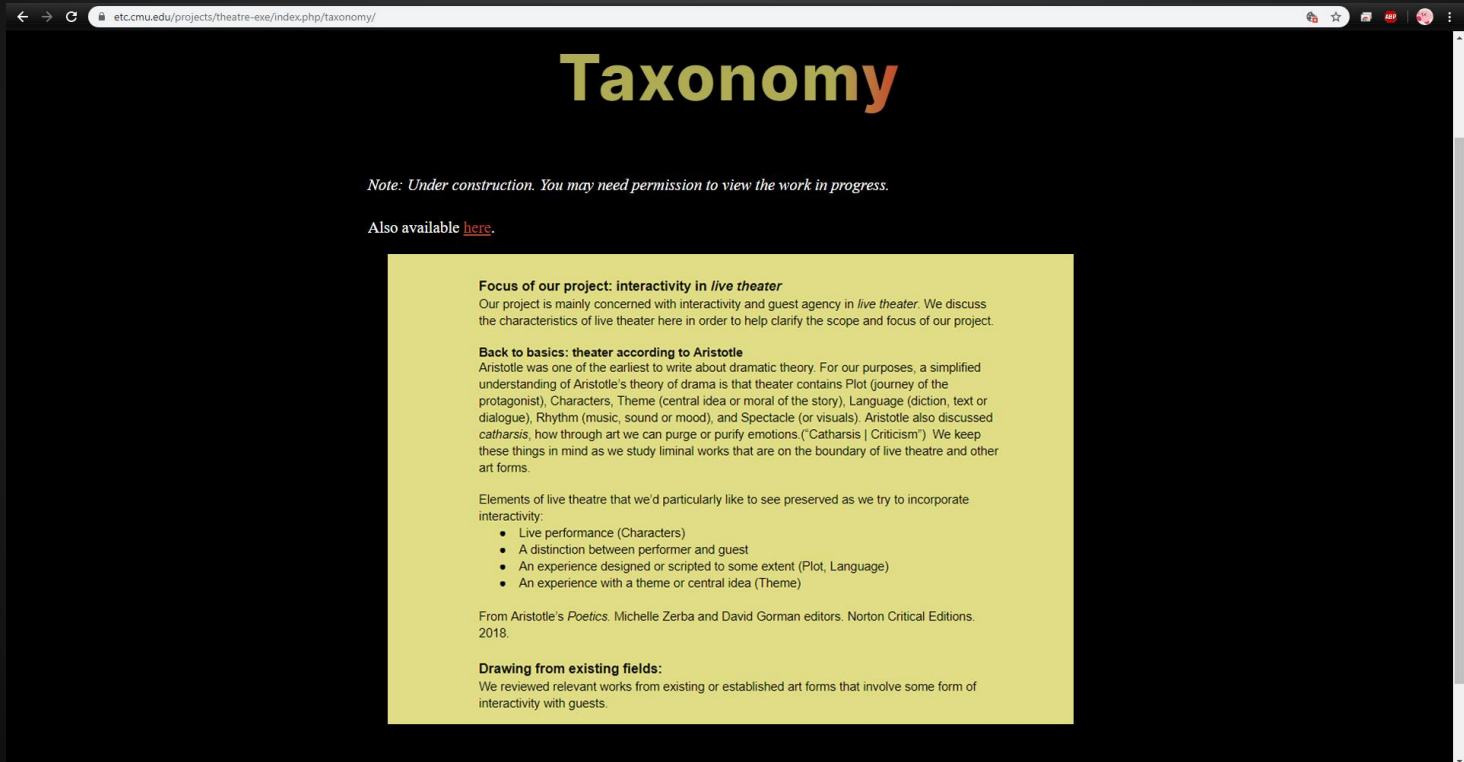
Moment of interaction with true agency

Our Focus

Deliverables

- Taxonomy
- Knowledge Base
- Prototype Documentation
- Concept Documentation
- Final Article for Well Played Journal

Before halves

Before halves

Prototypes

"Emote Me"

"Emote Me" is our first interactive voting based prototype wherein the audience can influence the emotion of the performer.

Fear
Joy
Anger
Sad
Envy

Dominant Emotion

Audience

Live Performer

Live Performer's screen

Dominant Emotion

Makey-Makey stations for Guests

Prototypes

Good:

Live Performance

Agency

Technology

Several narrative scenarios for live performance

Audience agency has influence on performer

Complete freedom of Agency

Technology facilitates agency

Portable and easy to understand Technology

Bad: Similar to puppeteering an actor and it lacks meaningful live performer-audience interaction

Prototypes

"Snapshot"

"Snapshot" is an android application built using Unity and AR Foundation SDK, wherein the guests can use the camera of a mobile phone to detect hidden clues in the world to collaboratively solve a mystery.

Click!

Guests finding hidden clues in the world.

Guide

AR Markers placed in the world for the guests.

Conversation

Audience

Live Performer

Hidden Clue

Clue Revealed
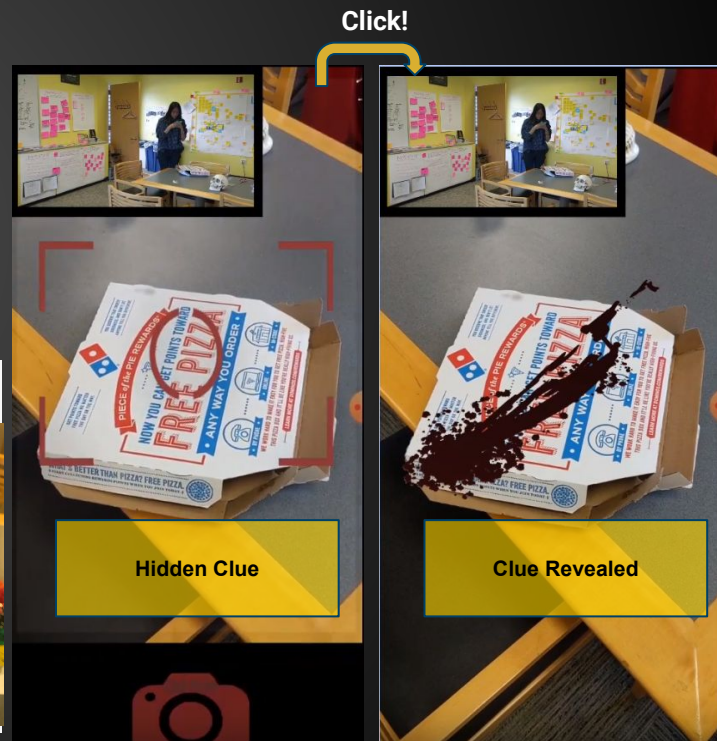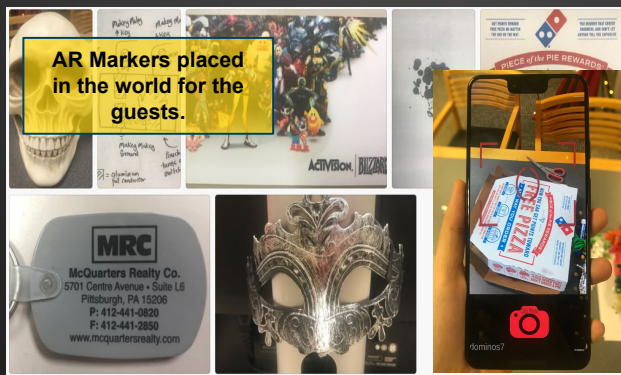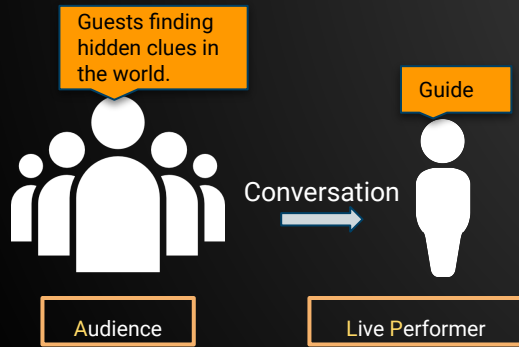
Prototypes

Good:
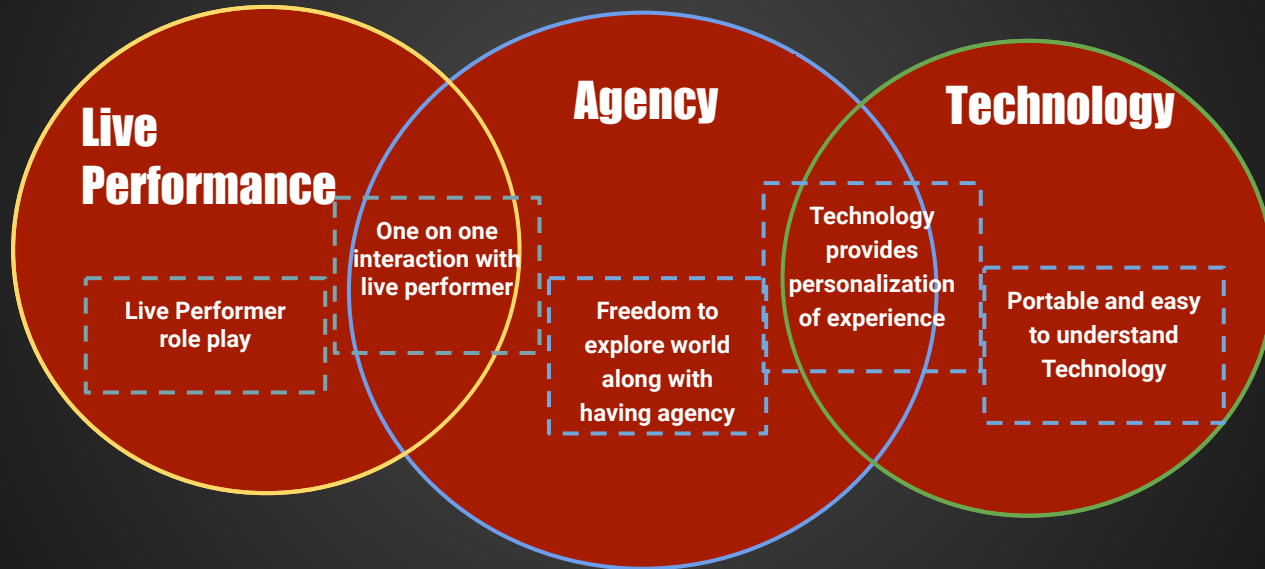
Bad: The narrative is chasing the tech, instead of the tech enhancing or inspiring the narrative.

Pivots after halves

Adjustments for COVID - 19 :

- We still want to study tech and agency in *live performance*
- We will develop ideas on paper and validate them through discussion with our project partners and research

Adjustments in general:

- Closer collaboration with project partners
- Leading with the narrative
- A narrative bigger in scope that came out of the collaboration

Little Red Riding Hood - "Deliberation"

"An exploratory set of moments of tech and agency in a live theater experience."

"The goal is to serve creators as potential inspirations for combining technology and agency."

Structure

Our partner

- The **narrative**
- 3 Stage managers, ~20 performers, 2 Acts
- 50 guests, general audience

narrative and parameters →

mutual inspirations and feedbacks ↔

What we do

- **Conceptual phase** before pre-production.
- Focus on **moments of agency in the context of a narrative**
- **Create well-developed ideas for agency moments combining tech, live performance and narrative.**

Structure

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Exploration of the pipeline of creating agency

Design Overview

- **Narrative summary**
  - Act I, Act II
  - Flowchart

A fictional truth and reconciliation experience. Descendents of people involved in a fictional grievous historical wrong try to reconcile with each other in a process facilitated by a company ("LRRH Company") specializing in helping guests move past past wrongs. Guests are descendents of victims, perpetrators, advocates and bystanders of the original event and are represented in the negotiation by "avatars" - archetypes from the Little Red Riding Hood story.

Link to detailed narrative (may still evolve)

Design Overview

- Narrative summary
- **Act I,** Act II, Act III
- Flowchart

Sorting Phase
Act I

Guests are put through a series of individual and small group encounters

Guests are sorted into four distinctive groups based on their choices and behaviours in the previous experience.

LRRH

Wolf

Grandmother
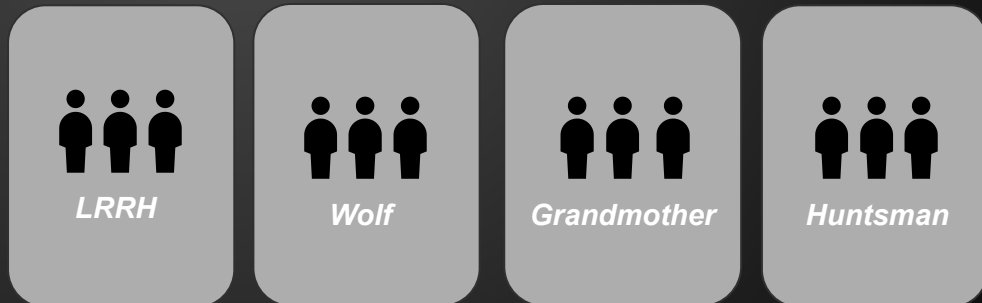
Huntsman

Design Overview

- Narrative summary
- Act I, **Act II**, Act III
- Flowchart

Deliberation Phase

Act II

Training Phase

LRRH Room   Wolf Room

Grandmother Room   Huntsman Room

Guests meet their character (Live performer).

Round Table

Facilitator

Our focus

Agency and Tech

Deliberation phase moves into the Judgement phase, which results in one of these three outcomes: granting of amnesty, retribution or restorative justice.

Design Overview

- Narrative summary
- Act I, Act II, **Act III**
- Flowchart

Judgment Phase
Act III

Act III

A short conclusion to the reconciliation commission where the guests decide to grant amnesty, restorative justice or retributive justice.

Design Overview

- Narrative summary
- Act I, Act II, Act III
- **Flowchart**

Our focus

Sorting Phase

Act I

Deliberation Phase

Act II

Training Phase

Cue phase

Open phase

Judgment Phase

Act III

Design Overview

Narrative

Sorting Phase
Act I

→

Deliberation Phase
Act II

Our focus

Guests are put through a series of individual and small group encounters

Training Phase

Guests are sorted into four distinctive groups based on their choices and behaviours in the previous experience.

LRRH | **Wolf** | **Grandmother** | **Huntsman**

LRRH Room | *Wolf Room*

Grandmother Room | *Huntsman Room*

Round Table

Facilitator
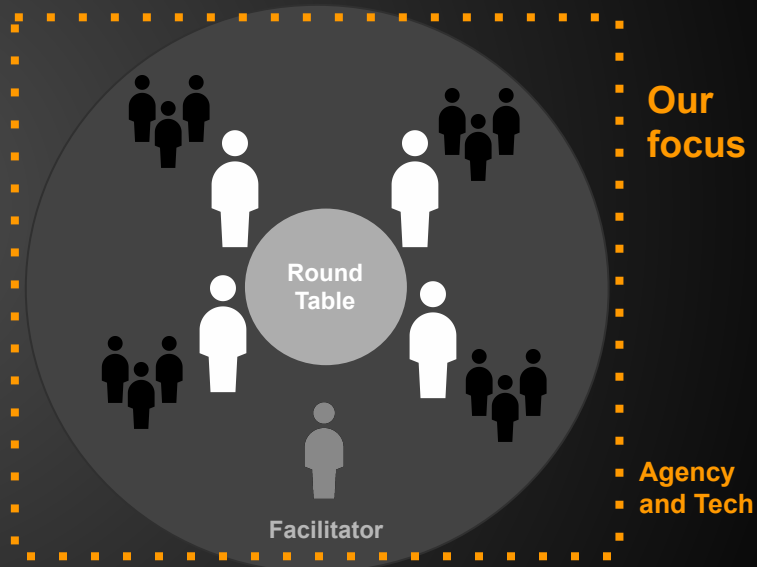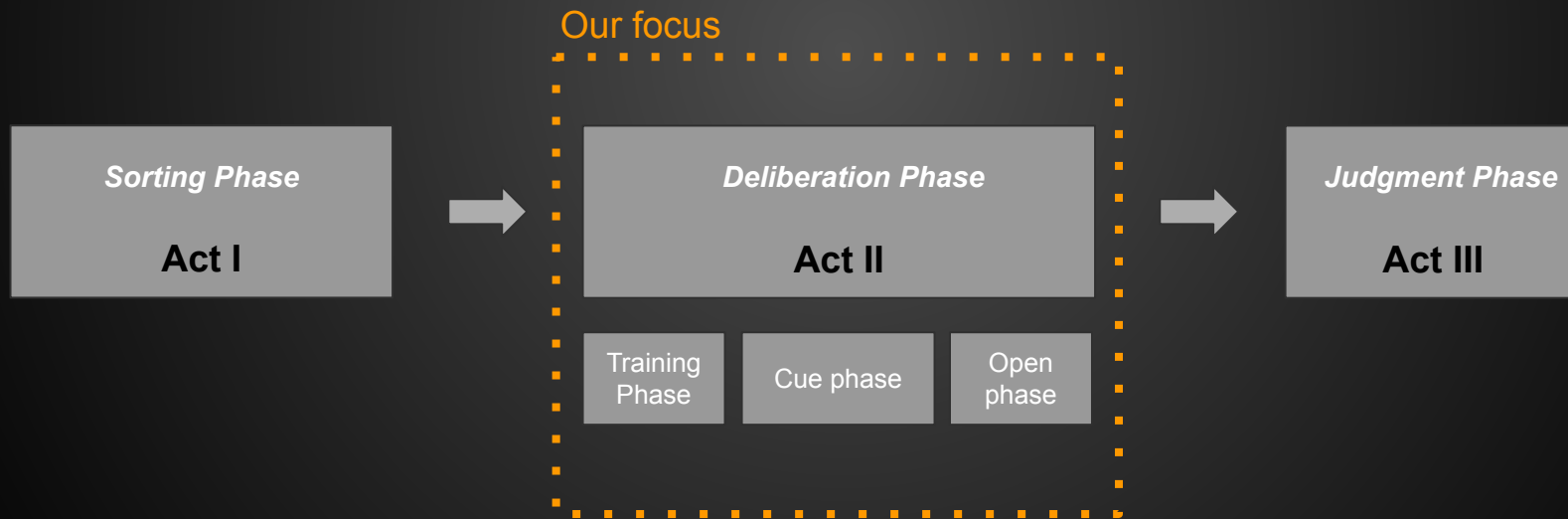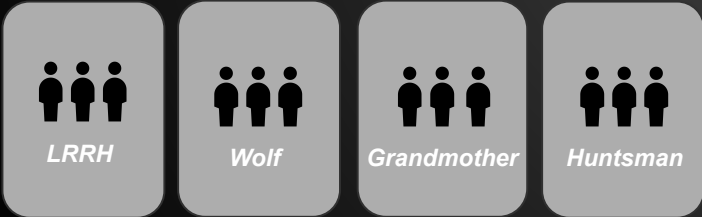
Guests meet their character (Live performer).

Deliberation phase moves into the Judgement phase, which results in one of these three outcomes: granting of amnesty, retribution or restorative justice.

Agency and Tech

Little Red Riding Hood

Group sits near a virtual campfire which represents the mental status of the LRRH

Agency: Guests perceive that they can change the emotional response of LRRH. They can encourage her to speak up.

Interactions: Adds different kinds of wood to the fire; Size of the fire will cause Red Riding Hood to make accusations/cry angrily or stay silent.

Tech: RFID tag. Tag two kinds of wood. The RFID tag reader is put underneath the virtual fire.
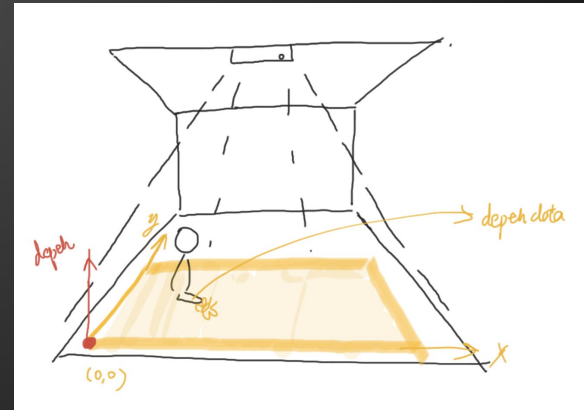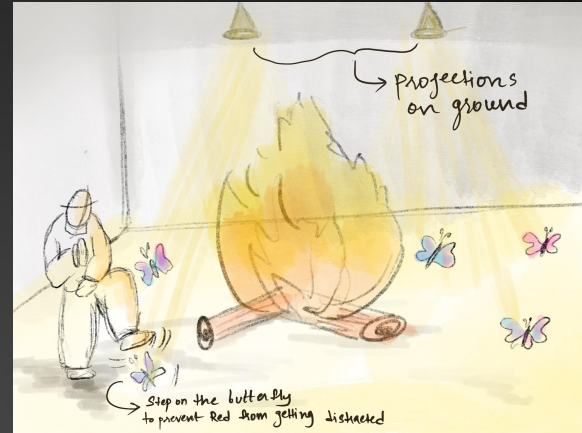
Little Red Riding Hood

Floor under guest has projections of butterflies, stepping on butterflies will prevent LRRH from being distracted from the meeting

Agency: Guests perceive that they can change the distractedness of LRRH. They can let LRRH to stay at the spot or wander around.

Interactions: Stepping on the butterflies.

Tech: Interactive floor projector.

Hang a Kinect above the area. Using kinect to detect the depth data. Where is higher than the floor means there's a guest. And we can calculate the guest position, match with the butterfly position to detect if the guest is stepping on it.

Little Red Riding Hood

Guests dance around campfire and body movement indicates whether LRRH will be more aggressive or not in final speech.
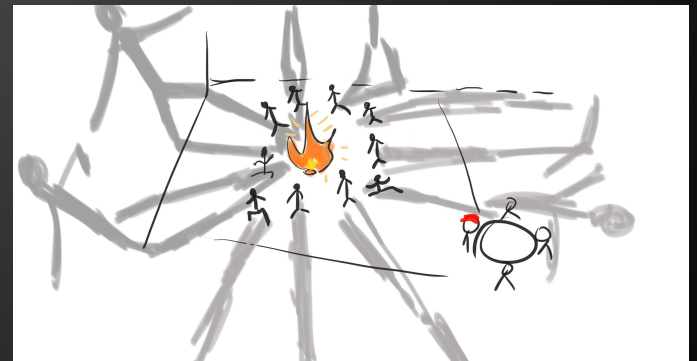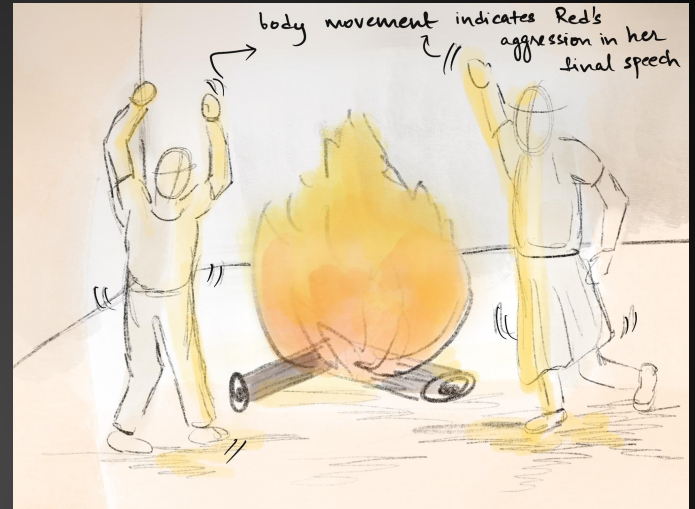
Agency: Guests can encourage LRRH to express herself forcefully or not

Interactions: Dancing in the area.

Tech: Shadow Projection

The lighting source will be put at the same position with the virtual fire.

When it lights up, it will cast dramatic shadows on the walls.

body movement indicates Red's aggression in her final speech

Wolf

Guests are seated on cushion pads. High striker threshold determines Wolf's reaction to the chair.

Agency: Guests feel they can control the wolf's aggressive reaction with a chair. They can decide the wolf's reaction of destroying a chair.

Interactions: Guests hit the high striker with a hammer turn by turn. if the force surpasses a threshold, wolf destroys his chair.

Tech: Air pressure sensor.

The guests will strike the rubber pad with the hammer, compressing the sealed rubber hose under it. An air pressure sensor attached to one end of the hose will generate an analog voltage (up to 5v), the Arduino Mega will read the voltage and light up the LEDs according to a predefined scale. [1]
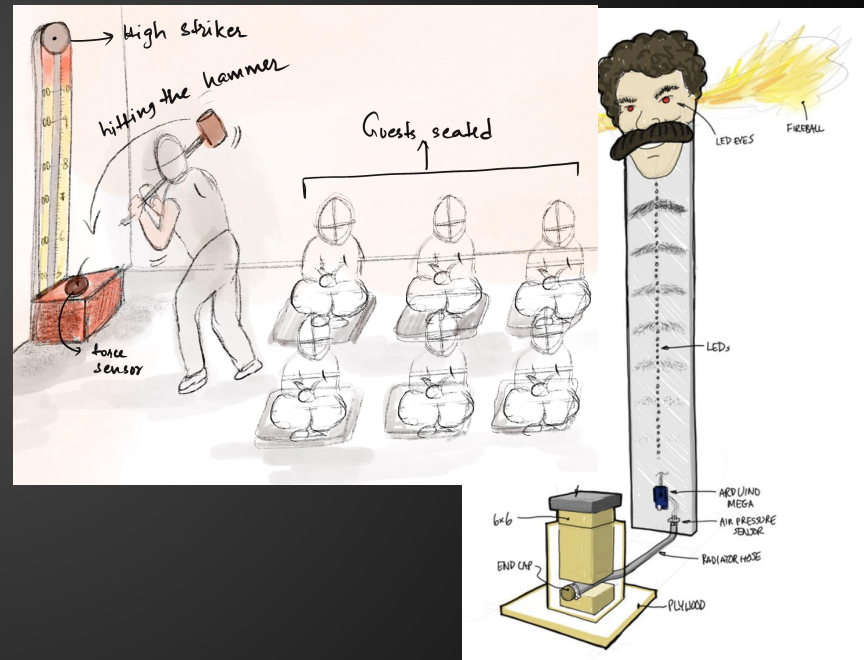
Wolf

Guests make aggressive noises together.

Agency: Guests can influence the wolf's communication and trigger him to start howling.

Interactions: Guests howl together, if the volume touches a certain decibel, the wolf joins the howling.

Tech: Decibel meter

The guests will howl together and the decibel meter placed nearby detects the level of the volume and displays it on the LCD screen.

Wolf

Guests modulate the aggression of the wolf.

Agency: Guests feel they can influence how loudly or slowly the wolf should speak in the conversation.

Interactions: Guests use hand gestures to modulate the aggression with which the wolf speaks which is indicated to him by projection of lava bubbles on the round table.

Tech: Projection, hand movement detection

Guests wear wolf mitts (or similar) fitted with sensors could detect hand movements. Projector used to project 2D visuals on round table.
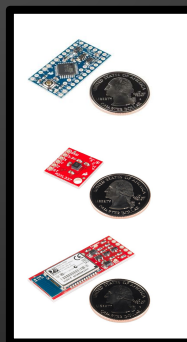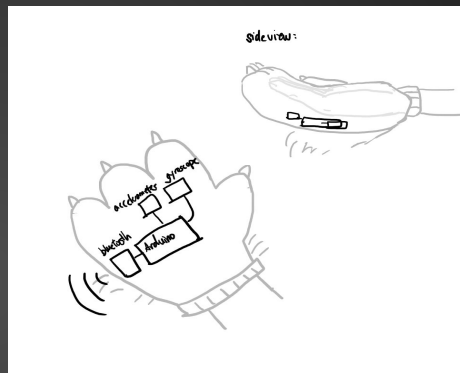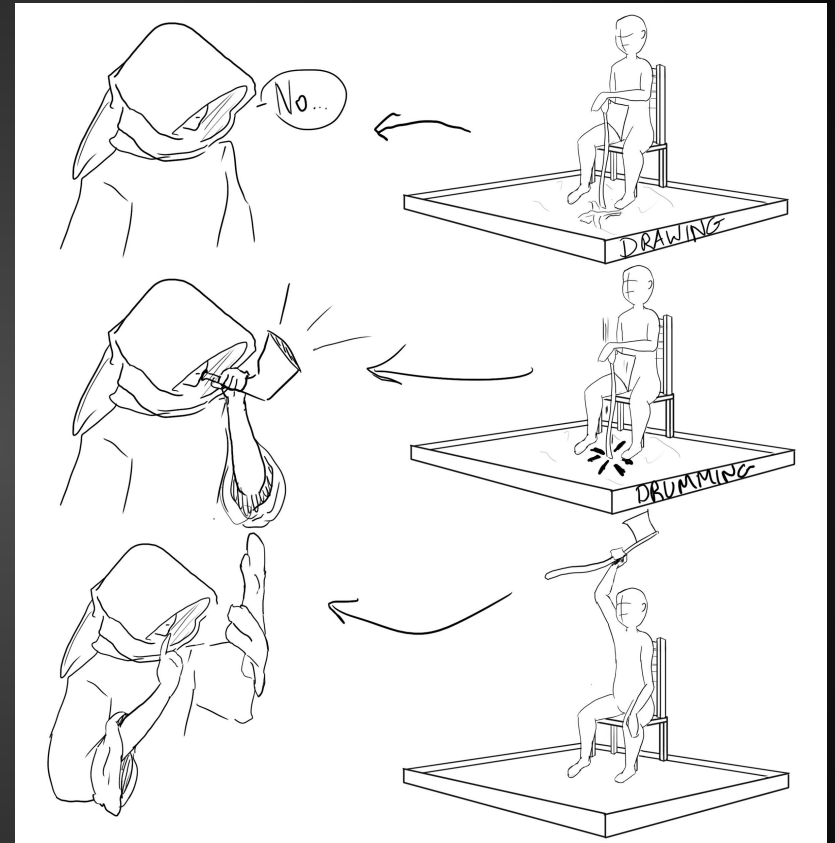
Huntsman

Guests are seated over a light-up sandbox area, holding a prop axe.

Agency: Guests should feel they are able to intervene with the proceedings, have the hunter almost interrogate the other characters. They should feel like they initiated a climactic moment when hunter blows his horn.

Interactions:

Raise the axe over their heads
Draw into the sand
Drumming together in rhythm

Huntsman

Guests direct the Huntsman's actions with a prop axe

Tech:

Smartpen, Arduino and sensors - accelerometer, gyroscope, force sensitive resistor

Light up sandbox example

Lernstift - example smart pen that uses accelerometer and does not rely on markers on the paper to record strokes. With development, axe could use similar tech.
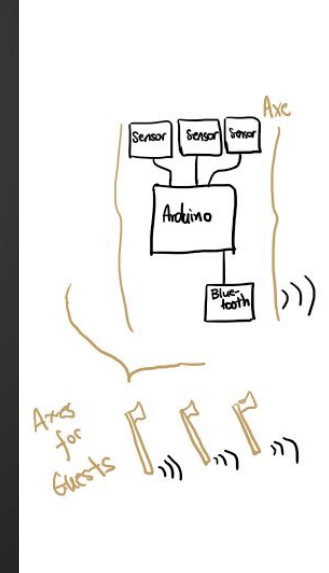
Axe movement could be recorded with sensors and wirelessly sent to a central computer to process

Grandmother

Guests direct the Grandmother's actions by manipulating their tea sets

Agency: Guests should feel they can help the grandmother be conciliatory, calm, or aggressive during the deliberation.

Interactions:

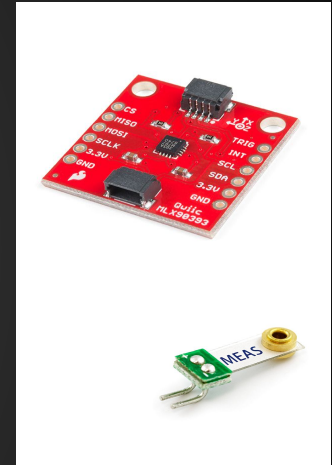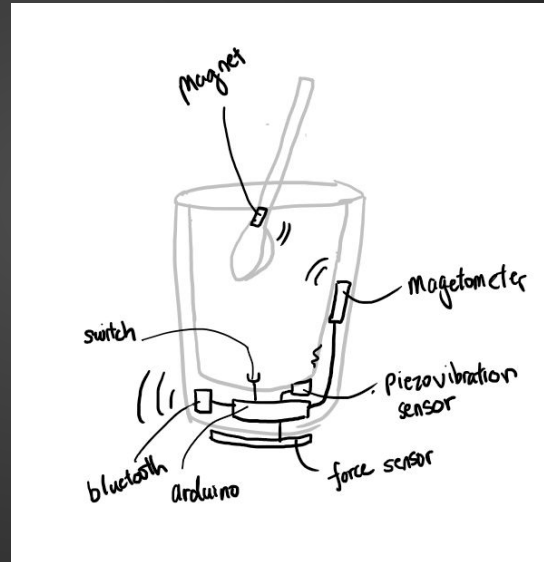Pour tea
Stir spoon in teacup
Slam teacup

Grandmother

Guests are having a "tea party". Each guest has a teacup and share a teapot.

Tech:

Arduino and sensors - force sensor, piezo-vibration sensors, magnetometer

Example magnetometer & piezo-vibration sensor from SparkFun

After Softs

Well-played journal article

- ○ Write-up of whole process including analysis of final concept & lessons learned

In Summary

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We are theatre.exe

We are seeking ways to create **meaningful interactive experiences** by using **technology** as a vital, intrinsic part of a **live performance**.