Indirect Control and Interactivity
What is Indirect Control?
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- Techniques to guide the player’s emotions, thoughts and actions
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- Range from subtle (transparent) to obvious (opaque)
What is Indirect Control?

- Techniques to guide the player’s emotions, thoughts and actions
- Range from subtle (transparent) to obvious (opaque)
- May be diegetic or extra-diegetic
What is Indirect Control?

It’s easier to determine when these techniques fail than succeed.
How Does Interactivity Affect Indirect control?

- Player is co-author of videogame story
  - More willing to overlook inconsistencies of videogame world because he has greater ownership than non-interactive media
How Does Interactivity Affect Indirect control?

- Player is co-author of videogame story
  - More willing to overlook inconsistencies of videogame world because he has greater ownership than non-interactive media

- In fact, if he can’t adequately be indirectly controlled he won’t be able to progress in the game.
Michael Mateas:

In order to invoke a sense of agency, an interactive experience must strike a balance between the material and formal constraints. (2005)
Formal vs. Material Constraints

Formal Constraints are the dramatic Structure and Possibilities of the game.

Material Constraints are the Affordances of the game.
Formal vs. Material Constraints

Formal Constraints of Quake:

1. Everything that moves will try to kill you

2. You should try to kill everything

3. You should try to move through as many levels as possible
Formal vs. Material Constraints

Material Constraints of Quake:

1. Player can run swiftly and smoothly through space
2. Player can pick up a wide array of lethal weapons
3. Player can fire these weapons at monsters that adhere to the “kill or be killed” ethos
Equations for “un-fun”

Material Constraints

(Avenues of agency)
Equations for “un-fun”

Material Constraints $>$ Formal Constraints

- (Avenues of agency)
- (Range of Challenges and Constraints)
Equations for “un-fun”

Material Constraints > Formal Constraints = Confusion/Lost

(Avenues of agency)

(Range of Challenges and Constraints)
Equations for “un-fun”

Formal Constraints

(Range of Challenges and Constraints)
Equations for “un-fun”

Formal Constraints > Material Constraints

(Range of Challenges and Constraints) > (Avenues of agency)
Equations for “un-fun”

Formal Constraints > Material Constraints = Frustration

(Range of Challenges and Constraints) (Avenues of agency)
Equation for Fun

Formal Constraints = Material Constraints = Agency/Fun

(Range of Challenges and Constraints)  (Avenues of agency)
Jesse Schell puts it simply...

Choices > Desires = Confused/Lost
Jesse Schell puts it simply...

Choices > Desires = Confused/Lost

Desires > Choices = Frustrated
Jesse Schell puts it simply...

Choices > Desires = Confused/Lost

Desires > Choices = Frustrated

Choices = Desires = Fun
To put it another way...

The **Formal Constraints** provide the **framework** for the player to act

while the **Material Constraints** provide the **means** to act
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The **Formal Constraints** provide the **framework** for the player to act

while the **Material Constraints** provide the **means** to act

It is in the boundary between these two domains where **INDIRECT CONTROL** comes onto play.
Methods of Indirect Control

1. Videogame Semiotics
2. Implicit Goals
3. Explicit Goals
4. Rules
5. Semiotics
6. Visual Hierarchy
7. Music
8. Sound Effects
Methods of Indirect Control

1. Videogame Semiotics
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Methods of Indirect Control

1. Videogame Semiotics

Referencing past videogame experience...

WarioWare Touched!
(2005 for Nintendo DS)
Methods of Indirect Control

1. Videogame Semiotics

- Leveraging Player’s previous videogame experience
- Videogame Genres
  - Platformers
    - Formal Constraints
      - You must traverse through precipitous environments
      - Enemies are obstacles to the goal (which is usually to reach a point in space)
    - Material Constraints
      - You will have acrobatic, dexterous, or exaggerated abilities of motion
      - You will have weapons appropriate to kill enemies (often using space, such as jumping on their head, rolling into them, etc.)
Methods of Indirect Control

1. Videogame Semiotics

Platformers...
Methods of Indirect Control

1. Videogame Semiotics

- **Action games**: shoot while being hit, strafe to hiding spot, take health, repeat

- **RPGs**: send fast character to lure enemy from group, all characters kill enemy, take health, repeat

- **Strategy Games**: order peasants, send to work, order soldiers, send to perimeters, repeat while slowly expanding the perimeters (up to the point of catastrophic win/lose); OR: move x archers to tower y every n minutes to head off the enemy camel musketeers from the east who arrive every n minutes

Lindley (2005)
Methods of Indirect Control

1. Videogame Semiotics

Lindley (2005)
Methods of Indirect Control

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2. Implicit Goals
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2. Implicit Goals

1) Understand **What** to do
2) Understand **How** to do it
3) Have **Skills** to do it
Methods of Indirect Control

2. Implicit Goals

1) Understand **What** to do
2) Understand **How** to do it
3) Have **Skills** to do it

In each micro-game in WarioWare this process is completed only once, so in this way it very much like our game...
Methods of Indirect Control

2. Implicit Goals

1) Understand What to do
2) Understand How to do it
3) Have Skills to do it
Methods of Indirect Control

2. Implicit Goals

Most games have a cyclical process within these steps...
Methods of Indirect Control

2. Implicit Goals

Most games have a cyclical process within these steps...
Methods of Indirect Control

2. Implicit Goals

Like our game, WarioWare Inc. also uses a single joystick and single “action” button.
Methods of Indirect Control

2. Implicit Goals
Methods of Indirect Control

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2. Implicit Goals

- Leveraging Worldly Knowledge
  - Hammer = Hit
  - Finger & Nose = Pick
  - Button = Push
Methods of Indirect Control

2. Implicit Goals

• Leveraging Worldly Knowledge
  – Hammer = Hit
  – Finger & Nose = Pick
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• Raph Koster says games teach us to pull manageable models out of reality - mastering them is the fun part (Theory of Fun, 2005).
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Methods of Indirect Control

3. Explicit Goals
Methods of Indirect Control

3. Explicit Goals

These range from a simple command:
Methods of Indirect Control

3. Explicit Goals

To a Plea:

Save me Mario!
Methods of Indirect Control

3. Explicit Goals

To a Statement:

Laine Meyers:
The gates will be unlocked once the research materials are secure. Be patient.
Methods of Indirect Control

3. Explicit Goals

To a Puzzle or a Database to be compiled or deciphered by the player:
Methods of Indirect Control

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Methods of Indirect Control

4. Rules

- Explicit (as in Chess) or Implicit (as in Cops and Robbers)
- Indoctrination process before play even begins through a theming of the rules:
Methods of Indirect Control

4. Rules

• Explicit or Implicit

• Indoctrination process before play even begins

So, this morning, I'm, like, wrist-deep in my nostrils—digging for gold, you know—when suddenly, I get the best news ever! My newest game, WarioWare, Inc.: Mega Party Games, had been completed!! Heh heh heh... It's like a license to print money! I'm gonna make a mountain of cash on this, and it's gonna be mine, all mine! As for all you chumps around town who helped me make this game, tough luck! No royalties for you!

WAAAAAAAH HA HA HA HA HA!!!

Yesterday, at the wrap party for my game, I ate so much liver ice cream that I gained a whole twenty pounds! Heck, I ate so much that I can't even squeeze past the bathroom door!! So anyway, I figured I'd just sit here and write Controller explanations for you lazy bums!
Methods of Indirect Control

4. Rules

For our project we could have something analogous to this — a physical artifact:

- A letter, document or map to examine
- A Themed Rulebook
- A Transpace Map
- A object or clue
  - like a piece of wood from a pew or ship
  - something to look for, in one, some or all of the Transpaces...
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Methods of Indirect Control

5. Semiotics

- Avatar, Character and World Design
  - Naturalistic
  - Cartoonish
Methods of Indirect Control

5. Semiotics

• Avatar, Character and World Design
  – Naturalistic
  – Cartoony

• Tetris block doesn’t look like it wants to have a conversation, jump or use a potion. It looks like something that should be manually manipulated, like a child’s block.
Methods of Indirect Control
5. Semiotics

• Avatar, Character and World Design
  – Naturalistic
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• Tetris block doesn’t look like it wants to have a conversation, jump or use a potion. It looks like something that should be manually manipulated, like a child’s block.

• Non-Player Characters
  – Leading you by what they’re looking at, direction of motion...
Methods of Indirect Control

5. Semiotics

Learned Affordances...

Jesse Schell Disney VR
Learned Affordances... strings are for pulling
(you may not even have a goal or know why you’re pulling it)
Since our project is about Transitions in Space, this provides a lot of opportunity for semiotic montage, blurring the signs.
Since our project is about Transitions in Space, this provides a lot of opportunity for semiotic montage, blurring the signs. Thus, we may have to hardcode the transitions to a slightly greater degree than expected to relieve much of that responsibility off the player.
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Methods of Indirect Control

6. Visual Hierarchy

- Gestalt
  - Dominant
    - What you look at first, where you’ll probably head first.
  - Continuance
    - See a line, you follow that line
  - Difference
    - Contrast
  - Closure
Methods of Indirect Control

6. Visual Hierarchy

Architectural Dominant...

Jesse Schell Disney VR
Methods of Indirect Control

6. Visual Hierarchy

Continuance...
Methods of Indirect Control

6. Visual Hierarchy

Continuance...
Methods of Indirect Control

6. Visual Hierarchy

Continuance...
Methods of Indirect Control

6. Visual Hierarchy

Difference through contrast...
Methods of Indirect Control

6. Visual Hierarchy

Difference through contrast...
Methods of Indirect Control

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Methods of Indirect Control

6. Music

- Music invokes certain behavior patterns:
  - Fast-paced music encourages quicker actions by the player
  - Spooky music encourages more calculated actions by the player
  - [sudden] Absence of music can cause reflection or maximum dread/suspense
Methods of Indirect Control

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Methods of Indirect Control

6. Sound Effects
Methods of Indirect Control

6. Sound Effects
Methods of DIRECT Control
Methods of DIRECT Control

Limitations or Forced Events should be contextualized diegetically.

Imagine running into a wall you can’t see...
Methods of DIRECT Control

Limitations or Forced Events should be contextualized diegetically.

(In truth this happens often in videogames)
Methods of DIRECT Control

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Methods of DIRECT Control

Limitations or Forced Events should be contextualized diegetically.

Another solution is to allow the player to transgress the limit, but bring him back through a force of nature, etc.
Methods of DIRECT Control

In the Truman Show much of the humor was achieved through the exaggerated methods of Indirect Control and Direct Control to keep him contained.
Methods of DIRECT Control
(that’s diegetically contextualized)

Another way to do this is through dialogue...
References

• Michael Mateas

• Craig Lindley

• Jesse Schell
  – Source for Disney references, indirect control of patrons, etc.

• Raph Koster
Questions or Comments?