

COMP08035 Computer Games Design

Week 05 Lecture - Gameplay



Gameplay



- Difficult concept to define
- Large number of contributing elements

Working Definition:

“One or more causally linked series of challenges in a simulated environment”

(Rollings & Adams 2003 p201)

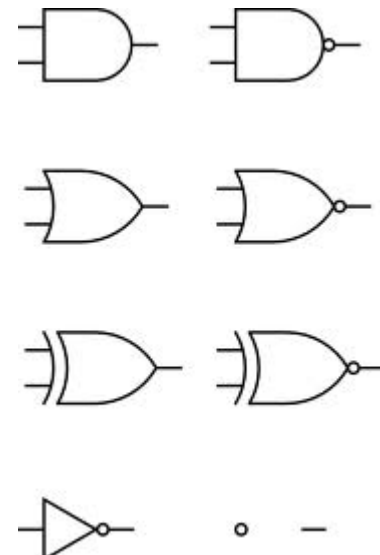
Types Of Challenges

- Logic And Inference
- Lateral Thinking
- Memory
- Intelligence-Based
- Knowledge-Based
- Pattern Recognition
- Morality
- Spatial Awareness
- Co-ordination
- Reflex/Reaction Time
- Physical



Logic And Inference

- These challenges test the player's ability to assimilate information and use that information to decide on a course of action.





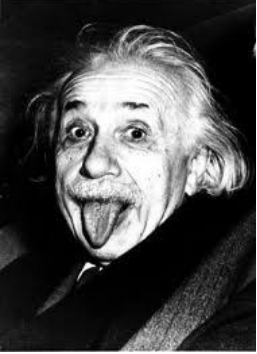
Lateral Thinking

- Uses same core player skills as **Logic and Inference** challenges, but taken to the extreme
- Requires the player to use his/her previous experience and knowledge in a new and unexpected way
- Can be *intrinsic* i.e. gained from within the game world or *extrinsic* i.e. Gained from outside the game world

Memory

- Test the player's recollection of game events
- Intrinsic events only
- Can be said that almost all games incorporate memory challenge in some form





Intelligence-Based

- Do not exist in pure form in games, only in intelligence tests
- Often combined with other types of challenge in games
- Example – give the player a sequence of similar shapes and ask him/her to predict the next shape in the sequence

Knowledge-Based

- Test the knowledge of the player
- Can be intrinsic knowledge, extrinsic knowledge, or a combination



Pattern Recognition

- The human brain is very skilled at recognising patterns
- Sometimes sees patterns when they're not actually there – *pareidolia*
- Very commonly used in computer games, right back to *Space Invaders* and *Tetris*



Morality

- High-level challenge
- Complex to design
- Can provide the most interesting and difficult challenges of all
- Player has choices that have consequences – for self, for other players, for community, for society as a whole



Spatial Awareness

- Specialised hybrid of a **Memory** challenge and a **Logic and Inference** challenge
- Think flight simulators and 3D combat games like *Unreal Tournament*



Co-ordination



- Test the ability of the player to react to many simultaneous challenges
- Normally combined with Reflex/Reaction Time challenges
- Almost all computer games incorporate this type of challenge in some form

Reflex/Reaction Time

- Test the timing ability of the player
- Very commonly used in computer games
- Not normally used on their own, usually combined with **Co-ordination** challenges





Physical

- Previously very rare in computer games because of the need for expensive special hardware
- Hardware devices like Nintendo *Wii* and Microsoft *Kinect* have made physical challenges possible

Application Of Challenges

- At the design stage, you don't have to define player challenges in detail
- You should indicate what kinds of challenges will be in your game
- Types of challenges can be combined in a number of forms, as follows:



Races

- Try to do something before someone else does
- Can be combined with **conflict**



Puzzles

- Huge number of possible types of puzzle
- Primarily a mental challenge
- Normally unlimited time to solve
- Can be a gateway to another level or part of a game



Exploration

- Key element of many games
- Obstacles make exploration more challenging
e.g.
 - Locked door
 - Trap
 - Maze
 - Teleporter





Conflict

- Central element of very many games
- To win a game player needs to beat other players and/or game AI
- Not necessarily combat or violence, although it often is
- Basis of this challenge type is survival

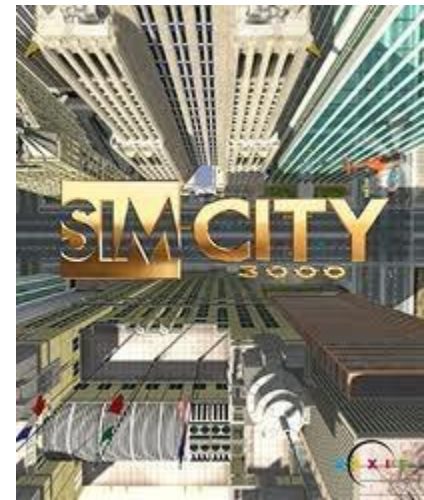
Economies

- About the flow of resources
- Can be wealth, points, gear, weapons, land etc etc – anything that has value within the game world
- Most games have an economy of some kind, even a simple one like health and ammunition



Conceptual

- Require the player to understand something new
- Arguably the richest and most interesting challenge type for the game designer
- Often found in construction and management simulation games e.g. *Sim City*





Gameplay Questions (1/3)

Some questions about your game:

1. What types of challenges will you include? Will you challenge the player's physical abilities, mental abilities or both?
2. Do you intend to tailor your game to a particular game genre? Will you include any cross-genre elements?
3. How does the story influence the gameplay, and vice versa? Do they operate together, or are they separate?



Gameplay Questions (2/3)

Some questions about your game:

4. How does gameplay affect the avatar's appearance and capabilities?
5. Are the challenges related or unrelated? If unrelated, how does that affect the player's suspension of disbelief?
6. How do the challenges relate to the game's target audience?



Gameplay Questions (3/3)

Some questions about your game:

7. Will the player be expected to face more than one challenge at the same time? If so, which ones?

Practical

- Allocate individual tasks and completion targets to team members
- Work on researching and writing your Game Design Document
- Record progress in your blogs.

