

Digital Game Design

Lecture 18 - COMPSCI 111/111G SS 2018



Adapted from "Toward a Unified Theory of Digital Games", P. Ralph and K. Monu, Computer Games Journal 4(1), 2015

What is Game Design?

What is a game?

1. A set of interconnected elements for structuring play
2. An event where one or more players interact with a play structuring system

What is a game element?

- ▶ Anything that is "found in most (but not necessarily all) games, readily associated with games and found to play a significant role in gameplay"

Game design involves creating a system of game elements to facilitate interaction

Game Element Classes

Artifacts

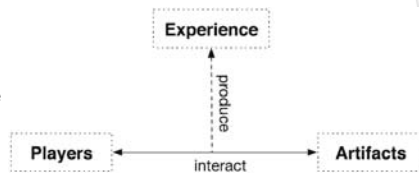
- ▶ Artificial objects and systems used to structure play

Players

- ▶ Human or non-human agents who use game artifacts to structure play

Experience

- ▶ Elements that emerge from player-artifact interaction



Artifact Elements

Element	Definition	Examples
Game mechanics	Elements used by game developers to challenge players	Quest, combo, puzzle, timer, skill, randomness, level, loot drop
Narrative mechanics	Elements used by game developers to advance plot	Dialogue, comm chatter, audio log, video log, moral choice, codex entry
Technology	Tangible or intangible artifacts used to deliver game elements or play the game	Gamepad, mouse, keyboard, tablet, smart phone, game engine, programming language
Embedded narratives	Stories told by the developers to players through narrative and game mechanics	Overall story told through cut scenes, dialogue, codex entries, and game progression

Experience Elements

Element	Definition	Examples
Dynamics	Emergent behaviour of both the game and the player during player-game interaction	Twitch gameplay, strategic gameplay, grinding, difficulty, balance, immersion
Emergent narratives	A meaningful sequence of events that emerges during player-game interaction	EVO 2004 Moment # 37

Player Elements

Element	Definition	Examples
Aesthetics	The emotions evoked by a game	Challenge, competition, drama, exploration, horror, humour, fellowship
Interpreted narratives	A player's mental representations and interpretations of a game's intended or emergent narratives	Player interpretation of twist or ambiguous game endings

Game and Narrative Mechanics

Game mechanics challenge the player while narrative mechanics advance the plot of a game

Not mutually exclusive - an element can be a game *and* a narrative mechanic

Narrative Examples

Teller	Audience	Example
Developer	Player	Cut scenes in <i>Metal Gear Solid</i>
Developer	Observers	<i>Destiny</i> non-playable demo at the E3 2013 Conference
Player	Him or herself	Player develops a model of his or her hometown in <i>SimCity</i>
Players	Players	Three friends cooperate to survive the night in <i>DayZ</i>
Players	Observers	Underdog achieves unlikely victory in <i>Starcraft</i> tournament

Aesthetics

1. Sensation - game as sense-pleasure
2. Fantasy - game as make-believe
3. Narrative - game as drama
4. Challenge - game as obstacle course
5. Fellowship - game as social framework
6. Discovery - game as uncharted territory
7. Expression - game as self-discovery
8. Submission - game as pastime
9. Competition - game as dominance

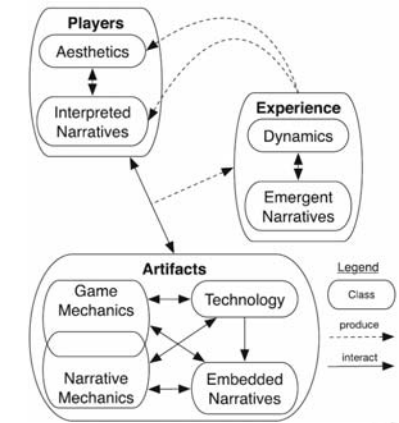
A game can evoke multiple aesthetics

- ▶ Aesthetics are player specific

Interconnections

Game elements are interconnected

- ▶ Within classes and between classes



Bad Game Design

Often occurs as a misalignment game elements

Examples:

- ▶ Game mechanics and embedded narrative (ludonarrative dissonance)
- ▶ Game mechanics and emergent narrative
- ▶ Game mechanics and aesthetics
- ▶ Dynamics and aesthetics
- ▶ Game mechanics and technology