GAM220

Spiky Games, Depth & Complexity

Overview

- In this session we will explore the following areas:
  - Aesthetics as gameplay experience
  - Capturing players’ attention
  - Keeping players engaged
  - Development processes

20 Questions

- Let’s play a game…
- Organise yourselves into groups of about 3 to 5 people.
- Rules:
  - One player thinks of a relatively common object
  - Other players have to identify the object by asking only ‘yes/no’ questions
  - The response could also be an adverb such as ‘sometimes’, or ‘rarely’
  - The game is won if the object is identified within 20 questions

Describe the Aesthetic

- Which words describe the aesthetic of playing the game?
  - Think about how you felt during play.

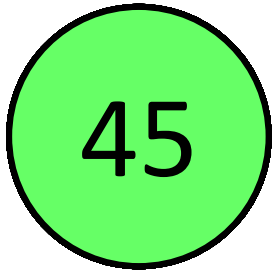
- Let’s change a rule and play again…
- First decide who will think of the object in the next round.

20 Questions

- Rules:
  - One player thinks of a relatively common object
  - Other players have to identify the object by asking only ‘yes/no’ questions
  - The response could also be an adverb such as ‘sometimes’, or ‘rarely’
  - The game is won if the object is identified within 20 questions
  - …

20 Questions

- Rules:
  - One player thinks of a relatively common object
  - Other players have to identify the object by asking only ‘yes/no’ questions
  - The response could also be an adverb such as ‘sometimes’, or ‘rarely’
  - The game is won if the object is identified within 20 questions
  - **The game is lost is the object is not identified <u>within 45 seconds</u>!**



Describe the Aesthetic

- Which words describe the aesthetic of playing the game now that we have added just a single rule?
- How has the player experience changed?

Function and Form

- People often split things down into function and form.

- *Functionally* a Porsche might have particular top speed, acceleration, gear ratios, horse-power, etc.
- Whereas it's *form* is in the beauty of the bodywork – each line and curve has been artistically crafted to be aesthetically pleasing.

Function and Form

- Some people might think a game's *function* is its rules and mechanics while its *form* is in the quality of its art assets, narrative, and music.
- However when we talk about 'aesthetics' with regard to game design we are typically not referring to the artwork. We are talking about the way in which the player has fun, the player's emotional response to the gameplay, or the **player experience**.
- When we changed a rule in 20 Questions we modified the player experience. This is gameplay aesthetics in a nutshell.

Unpacking ‘Mechanics, Dynamics, Aesthetics’

- **Mechanics** describes the particular components of the game, at the level of data representation and algorithms.
- **Dynamics** describes the run-time behaviour of the mechanics acting on player inputs and each others' outputs over time.
- **Aesthetics** describes the desirable emotional responses evoked in the player, when she interacts with the game system.

https://www.cs.northwestern.edu/~hunicke/MDA.pdf

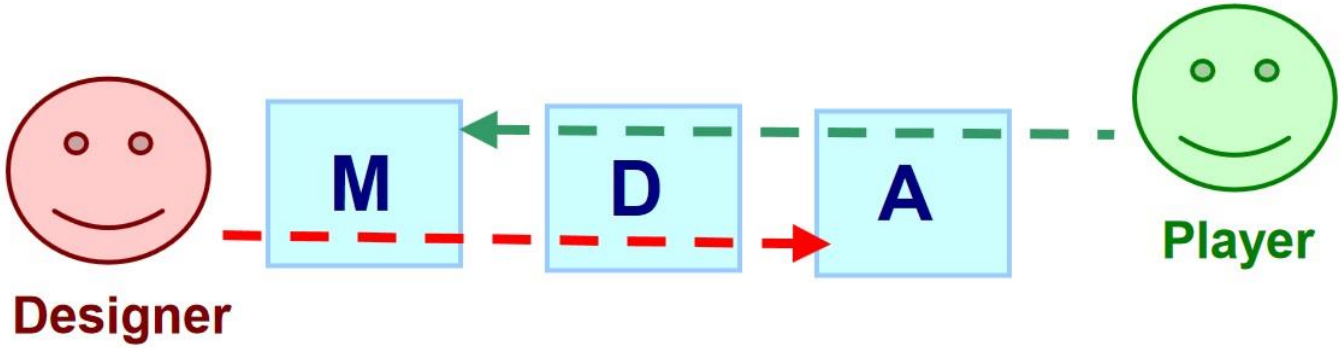
Types of “Fun”

- Hunicke, LeBlanc, and Zubek begin to define some different game aesthetics, or some different kinds of “Fun”:
  - **Sensation** - Game as sense-pleasure
  - **Fantasy** - Game as make-believe
  - **Narrative** - Game as drama
  - **Challenge** - Game as obstacle course
  - **Fellowship** - Game as social framework
  - **Discovery** - Game as uncharted territory
  - **Expression** - Game as self-discovery
  - **Submission** - Game as pastime

Aesthetics as a Second-Order Problem

- A developer cannot merely pour a cup of ‘Fellowship’ onto the computer to bring more social interaction to their game (obviously!)
- Instead, we can only change the rules (mechanics) which in turn affect the ‘fun’ or ‘player experience’ (aesthetic) within the game.
- As such, changing the aesthetics of gameplay is a second-order problem.

Approaching Aesthetics



- The MDA paper tells us that designers and players will ‘view’ the mechanics, dynamics, and aesthetics process from different ends.
- However, this does not indicate their starting point! Designers do not start with a random mechanic and later see whether it fits the desired aesthetic, and players do not start with an emotional response to a game before any other part has been experienced.

- Aesthetics or Player Experience should be at the heart of your game.
- All game development work should be derived from a strong understanding of this aesthetic or player experience.

Understanding Player Experience

- Extra Credits have published a video titled: Understanding the Fantasy - How to Shape a Game's Design, they state:
- “The most important skill for a game designer is understanding the fantasy or player experience their game wants to deliver. Dig deep into the genre of the game, study both the best and worst examples from all media to understand why people love that genre, and then design visuals, story, and mechanics that make the most of that understanding.”

Player Motivation

- We've examined the '8 Kinds of Fun' from the MDA paper:
  - Sensation, Fantasy, Narrative, Challenge, Fellowship, Discovery, Expression, Submission
- You may have previously seen Bartle's Taxonomy of player types:
  - Killers, Achievers, Socialisers, Explorers
- These give us 'types of fun' and 'types of player', and both describe player motivation but from different perspectives.
- These are all ways of describing **aesthetic** or **player experience**!
- In 2016 Quantic Foundry built a thorough model which attempts to tie these things together…

GAMER MOTIVATION MODEL

QUANTIC FOUNDRY

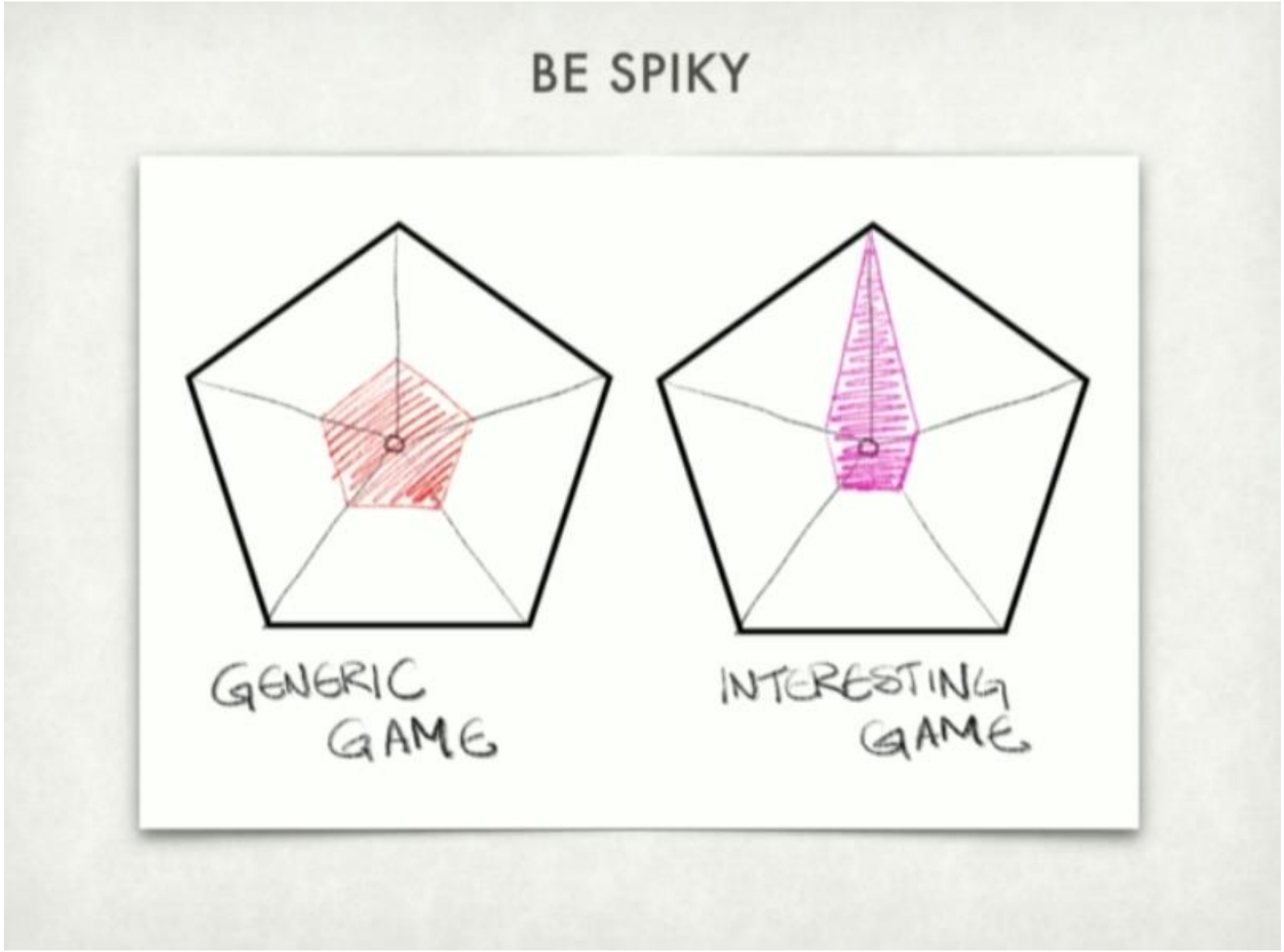





Action "Boom!"	Social "Let's Play Together"	Mastery "Let Me Think"	Achievement "I Want More"	Immersion "Once Upon a Time"	Creativity "What If?"
Destruction Guns. Explosives. Chaos. Mayhem.	Competition Duels. Matches. High on Ranking.	Challenge Practice. High Difficulty. Challenges.	Completion Get All Collectibles. Complete All Missions.	Fantasy Being someone else, somewhere else.	Design Expression. Customization.
Excitement Fast-Paced. Action. Surprises. Thrills.	Community Being on Team. Chatting. Interacting.	Strategy Thinking Ahead. Making Decisions.	Power Powerful Character. Powerful Equipment.	Story Elaborate plots. Interesting characters.	Discovery Explore. Tinker. Experiment.

Player Experience in Practice

- Let’s say that you’ve generated lots of ideas through concepting and prototyping and you’ve started to understand the player experience involved in each. How should you know what to keep and what to cut in order to deliver a valuable player experience through your game?
- Some might think that game development is additive - if you add more features then the game gets better. But often this could not be further from the truth.
- Be Spiky!
- Define a ‘mission statement’ around player experience.



Source: Be Spiky: A Decade of New Ideas, Jamie Cheng / Klei Entertainment:
[GDC 2016 Presentation link]

Player Experience in Practice

- Don't try to include ‘something for everyone’, or make a game that’s a ‘jack of all trades’. **Being okay at everything makes for an unremarkable game**. Instead make a game that defines one specific thing that you intend to do well and focus just on that - make your game stand out from the crowd for doing that one thing very well.
- Consciously choose what your game is not!
- Being spiky makes everything else easier - it makes marketing the game easier, the design can be more focused, production requires fewer expert skills, etc.

Player Engagement

- So, you know where your '**spike**' is, and you've defined a strong mission statement around it.
- You've based it all upon aesthetics / **player experiences** that you've researched and fully understand.
- But you've still got competing ideas which could deliver the experience! Which one do we pick?...
- The one with delivers better **depth** against **complexity**!

Complexity is bad

- People can only hold a certain amount of information in mind at any one time.
- If you're given too much information to remember at once the task can become a burden.
- The amount of info that you have to keep in mind at any point in time is called '**cognitive load**' and is a form of **complexity**.

- Too much complexity in a game will turn players away.

Complexity is good?

- It’s not quite true to say that all complexity is bad. Complexity in a game is just the pieces of information that the player needs to know about.
- If there was no complexity at all there would be nothing for the player to know and therefor they could never make an informed or meaningful decision.
- A game lives and dies by its meaningful decisions. We call meaningful decisions ‘**depth**’.
- Depth is bought with (a little) complexity.

Example: Chess

- There's a well known adage that chess is "easy to learn and difficult to master"
- This means there's very little complexity to chess (i.e. there are few rules to keep in mind), but there is a lot of depth (i.e. there are huge number of *meaningful* decisions that a player can make based on those few rules).

Decision Making and Game Pacing

- Resolving the issue of complexity and depth is not quite as simple and limiting how much complexity there is in the entire game, but rather how much the player needs to know at any given moment, and how much time they have to make a decision.
- A turn-based strategy game such as Civilisation can afford to have a lot more complexity than a real-time and fast-paced action game such as Quake.
- Someone playing Civ will want to take their time to think about an optimal strategy, and as such more complexity is required to attain the level of depth that suits the pace of their game.
- Some games change the depth/complexity balance as the game progresses, e.g. Super Mario Galaxy will introduce an item or mechanic while the player has plenty of time to explore it in safety, and later expect them to have mastery of it in a more time-critical situation.

Depth in Practice

- Complexity buys depth but also limits it.
- If you have to pick one of a few different ideas for a puzzle / situation / mechanic in your game then pick the one with the least complexity for the player.
  - It’s easier to add complexity later than to remove it
  - It’s better to try the less complex option first; it’s difficult to imagine the less complex option once you’re used to the complex one

Summary

- Keep aesthetics at the heart of your game
- Understand the player experience (thoroughly!)
- Excel at one thing. Be spiky. Write a strong mission statement
- Focus on depth over complexity. Use only just enough complexity for the pace of your game so that it is ‘easy to learn, difficult to master’

- Questions?

Further Reading

- On Aesthetics
  - Mechanics, Dynamics, Aesthetics
  - 8 Kinds of Fun
  - Quantic Foundry [overview, GDC talk, motivations explored]
- On Spiky Games
  - Be Spiky: A Decade of New Ideas, Jamie Cheng at GDC 2016
  - Extra Credits: Understanding the Fantasy - How to Shape a Game's Design
- On Depth & Complexity
  - Extra Credits: Why More Features Don't Make a Better Game
  - Gamasutra Articles: [Dan Felder, Mike Stout]