Game Design

Beginning the Game Design Process

Admin

- Questions?
- Project?
- Quiz time yet?

Beginning The Design

- When you begin your game, you need to design it
- To do so answer *many* questions.
- And prepare a lot of answers to common questions.

Concept

- Your Game Concept
  - The distilled essence of your game in a succinct description
  - My old Ph.D advisor and his three descriptions of 'your research'
    - The 20 second introduction
    - The 1 minute elevator ride
    - The 5 minute conversation.
  - Have each for your game.
    - Let's try the first/shortest with a couple of popular games
      - 'Lucky volunteer time'

Game Concept Document

- Many (most?) successful game designers user a Game Concept Document to lay out longer form explanation of game
  - Variety of formats. But book format is pretty indicative of the sorts of sections of the document should have

Game Design Document

- Sections
  - Hook/Elevator pitch. (30-60 seconds)
  - Game Overview (larger description – half a page or so)
  - Key Features/USPs (Unique Selling Points)
  - Game Genre
  - Platform
  - Target Audience
  - Business Model
- Let's look more closely at each of the rest – and ask you all to tell me about them from a players perspective.

Hook/Elevator Pitch

- We did this one

Game Overview

- Game Overview
  - The seed of the description that you might find on the steam page
    - Will get updated as game is actually built
  - Longer than the hook, but not so long that people get bored.

Key Features/ USP

- Where will you, the player, see the Key Features/ USP?

Key Features/ USP

- Where will you the player see the Key Features/ USP?
  - Often advertising
  - Maybe Bullet points on steam page
- Let's try this for some well known games.
  - Marvel Rivals
  - Minecraft
  - Elden Ring
  - Another?

Breakthrough USPs

- Often when someone comes up with a USP that resonates
  - Creates a 'breakthrough' (your book's term)
  - Sometimes creates a **new genre** and makes a boatload of money
    - Early examples:
      - Civilization 1
      - Sim City
      - Doom
      - Assassin's Creed
      - WII Sports
      - Something newer?
  - Sometimes fails spectacularly
    - Spore
    - No Man's Sky
    - Others?

Platform

- Supported platform makes a big difference in what features and USP will work.
  - Will talk more in depth later in the course, but
    - Console vs PC for Plants vs Zombies?
    - Shooters on both?
    - On Phones?

Target Audience

- Target Audience matters a lot
  - Again, we will look more deeply at this later
  - But a couple things
    - What is your primary target audience?
      - Because 'everyone' almost always doesn't work. (unless you have hundreds of millions to spend)
    - Game for 10 year-olds will rarely appeal to 25 year olds (FNAF?)
    - Game for 25 year olds likely not appropriate for 10 year olds.
  - What does your target audience value? (generalizations required)
    - 10 year olds?
    - 20 year olds?
    - 35 year olds?
    - 50 year olds?

Business Model

- Standard AAA game cost $50 in 1999
  - Adjusted for inflation that was $60 in 2005
  - This was with the globalization change in prices and post-Clinton removing housing from inflation calculations.
- Given that, how much should a AAA game cost today?
  - Assuming no increase in quality in the last 20 years, this is what a game should cost today
  - Round figure is good

Business Model

- Standard AAA game cost $50 in 1999
  - Adjusted for inflation that was $60 in 2005
  - This was with the globalization change in prices and post-Clinton removing housing from inflation calculations.
- Given that, how much should a AAA game cost today?
  - Assuming no increase in quality in the last 20 years, this is what a game should cost today
  - ~ $ 100
  - Source Bureau of labor statistics.
  - https://www.bls.gov/data/inflation_calculator.htm

Business Model

- How will your game make money?
  - Programming
  - Art
  - Music
  - Maybe writing
  - All costs money
  - AI will 'save us all'?

Business Model

- How will your game make money?
  - What are the (common) monetization methods in 2025
  - Many (lucky) student volunteers

Business Model

- How will your game make money?
  - What are the (common) monetization methods in 2025
  - I thought I would get:
    - Up front payment (premium in your book's terms)
    - Subscription
    - Data harvesting
    - Advertising
    - Micro-transactions (what sorts?)
    - Any of the above with paid DLC
    - What did I miss?
- Let me get an example or two of each revenue model

Fun

- Fun – we play games to 're-create' our energies for working in the word, that is 'for fun'

- So what is fun?

Fun

- Fun – we play games to 're-create' our energies for working in the world, that is 'for fun'

- So what is fun?

  - "Free play within constraints"

  - 'flow' (Mihaly Csíkszentmihályi)

  - Learning/exploring in an entertaining manner (Raph Koster)

  - 'fantasy' (in this case 'living' a different life – your book)

    - Pilot, general, city architect, etc.

- How does your game provide a 'fun experience'?

Your Competition

- Games are a business
  - Unless you want to become a millionaire in games by starting as a billionaire
- So in business you need to know you competition as well as your customers and your product (game)
  - If you are releasing a shooter in 2025 on PC, you need to know how you stand out from CS2 right?
  - Other examples?
- How do you get better than your competition?
  - 'lucky volunteer'?

Your Competition

- Games are a business
  - Unless you want to become a millionaire in games by starting as a billionaire
- So in business you need to know you competition as well as your customers and your product (game)
  - If you are releasing a shooter in 2025 on PC, you need to know how you stand out from CS2 right?
  - Other examples?
- How do you get better than your competition?
  - 'lucky volunteer'?
  - What actually worked in another field : https://www.youtube.com/shorts/2v_RTdSxHxA (apologies for one vulgarity)

Your Competition

- Games are a business
  - Unless you want to become a millionaire in games by starting as a billionaire
- <snip>
- How do you get better than your competition?
  - 'lucky volunteer'?
  - What actually worked in another field : https://www.youtube.com/shorts/2v_RTdSxHxA (apologies for one vulgarity)
- And going up against a juggernaut (note British perspective)
  - https://www.youtube.com/shorts/WhMp3xtdCl0

Scoping your Game

- When building your initial documents
  - Think about time, effort and money.
  - What kind of a timeline are you looking at?
    - Issues? (lucky volunteer?)

Scoping your Game

- When building your initial documents
  - Think about time, effort and money.
  - What kind of a timeline are you looking at?
    - Games with development cycles more than 10 years rarely work out well even if you somehow have all the money in the world
    - c.f. Star Citizen: https://www.space.com/entertainment/space-games/800-million-13-years-and-still-no-release-date-the-state-of-star-citizen-in-2025
    - What about Doom(4/2016)?
    - Others?
- Issues in long development time?

Scoping your Game

- When building your initial documents
  - Think about time, effort and money.
  - What kind of a timeline are you looking at?
- Issues in long development time?
  - Run out of Money
  - Cultural Zeitgeist may change
    - Games about destroying Cities in 2002 or Biological warfare/viruses in late 2020
    - Others?

Structure and Scoping

- To be able to effectively scope
  - Including estimates (more on that in software eng/Senior Dev)
  - Must understand and define game structure.

Narrative Structure

- Book
  - Linear
  - Structured Non-Linear
  - Open Non-linear
  - Sandbox/Endless
- Students tell me about these
  - Including advantages/disadvantages (especially from designer rather than player)
- Diagrams page 40ish
- Note: often not discrete categories

Content

- Rules/Mechanics vs Content
- Mechanics apply for all game
- Content is consumed
  - Highly correlated with assets.
  - How do you get assets
  - How do you generate content?
    - Options?

Content

- Rules/Mechanics vs Content
  - Mechanics apply for all game
  - Content is consumed
    - Highly correlated with assets.
    - How do you generate content?
      - Options?
      - Dev 'Hand-created'
      - Procedurally generated
      - AI created
      - User created
    - Students tell me advantages and disadvantages
  - Content burn? Content furnace?
    - Steam review: 1346 hours played, this game is terrible - !?!?!

Content and Progress

- Content Lifespan
  - How long do players care about a piece of content
  - What can affect this?

Content and Progress

- Content Lifespan
  - How long do players care about a piece of content
  - What can affect this?
    - My pre semester answers:
      - Players get tired of something
      - Players move to part of game where other content doesn't matter
      - Player makes a decision that cuts off access to content
      - Others student came up with?
  - What about progress?
    - Stardew Valley?
    - CounterStrike 2?
    - Baldur's Gate 3?
    - Another?

Progress and c

- Book example (page 55) of progress and content
  - In This game: Gameplay is mostly about battles (core gameplay loop)
  - BUT, progress is about base level
    - Lets designers
      - gate content
      - Know when another bit of content will be obsolete /less relevant
    - See also spreadsheets on pages 56-57
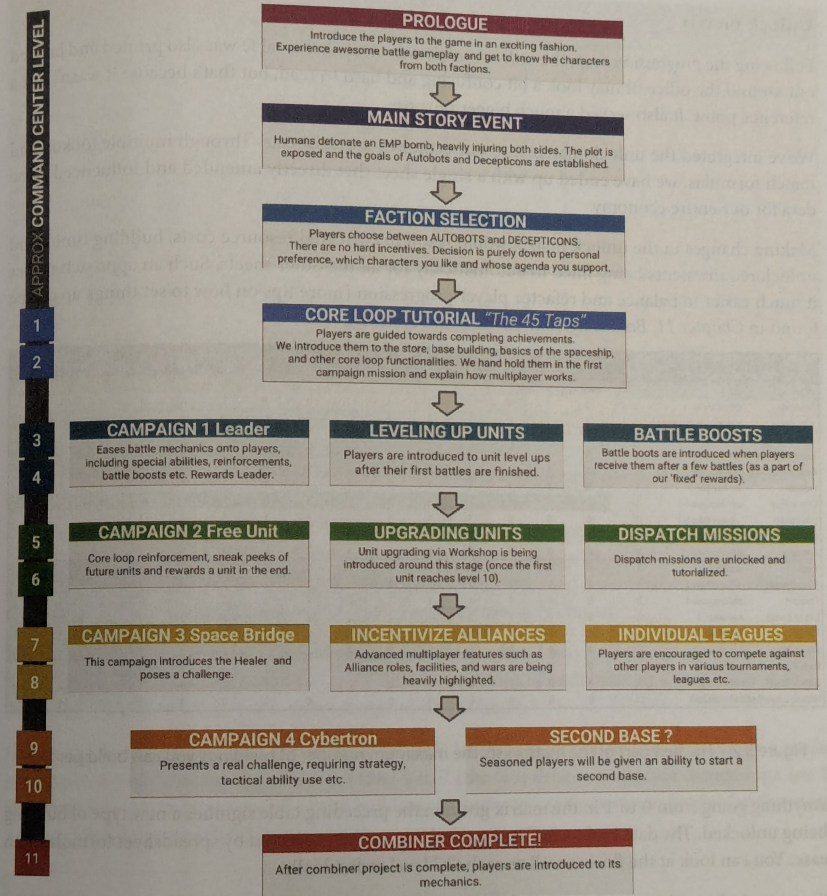   - Note book discussion of columns for how much of the map each item takes as well as cost etc.

APPROX. COMMAND CENTER LEVEL

PROLOGUE
Introduce the players to the game in an exciting fashion. Experience awesome battle gameplay and get to know the characters from both factions.

MAIN STORY EVENT
Humans detonate an EMP bomb, heavily injuring both sides. The plot is exposed and the goals of Autobots and Decepticons are established.

FACTION SELECTION
Players choose between AUTOBOTS and DECEPTICONS. There are no hard incentives. Decision is purely down to personal preference, which characters you like and whose agenda you support.

CORE LOOP TUTORIAL *"The 45 Taps"*
Players are guided towards completing achievements. We introduce them to the store, base building, basics of the spaceship, and other core loop functionalities. We hand hold them in the first campaign mission and explain how multiplayer works.

CAMPAIGN 1 Leader
Eases battle mechanics onto players, including special abilities, reinforcements, battle boosts etc. Rewards Leader.

LEVELING UP UNITS
Players are introduced to unit level ups after their first battles are finished.

BATTLE BOOSTS
Battle boosts are introduced when players receive them after a few battles (as a part of our 'fixed' rewards).

CAMPAIGN 2 Free Unit
Core loop reinforcement, sneak peeks of future units and rewards a unit in the end.

UPGRADING UNITS
Unit upgrading via Workshop is being introduced around this stage (once the first unit reaches level 10).

DISPATCH MISSIONS
Dispatch missions are unlocked and tutorialized.

CAMPAIGN 3 Space Bridge
This campaign introduces the Healer and poses a challenge.

INCENTIVIZE ALLIANCES
Advanced multiplayer features such as Alliance roles, facilities, and wars are being heavily highlighted.

INDIVIDUAL LEAGUES
Players are encouraged to compete against other players in various tournaments, leagues etc.

CAMPAIGN 4 Cybertron
Presents a real challenge, requiring strategy, tactical ability use etc.

SECOND BASE ?
Seasoned players will be given an ability to start a second base.

COMBINER COMPLETE!
After combiner project is complete, players are introduced to its mechanics.

Figure 3.6 – Simplified player progression flow

Priorities

- Dependencies can help focus priorities for game development
  - We don't need art for end game if nobody ever gets there.
  - 'start from the middle' advice from the book.
    - Attempt to reduce the number of 'agile iterations' by working the to know where we need to get to when working on the beginning.
    - Example of "if I had only known" from students?

Assignment

- Read chapters 2-3 from book.